OCCASIONAL PAPER ▫ 20

TOWARDS STEWARDSHIP OF WINNIPEG'S RIVER CORRIDORS: CONFERENCE PROCEEDINGS (SECOND WINNIPEG RIVERS CONFERENCE)

Brijesh Mathur and Mary Ann Beavis, editors

INSTITUTE of URBAN STUDIES

UNIVERSITY of WINNIPEG

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edited by

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INTRODUCTION

> Rivers are the last open valleys of the urban terrain, the last remaining paths where man [*sic*] may establish his rights of access and enjoyment. They are also the ecological system that demands the highest priority in conservation and quality protection. More than any other catalyst, riversides hold the greatest hope for beginning a revival of confidence in the urban physical environment. Let us manage them well.[1]

In 1985, the Institute of Urban Studies held the First Winnipeg Rivers Conference. The title of that conference was "Urban Rivers--Expanding Our Vision." Several interesting ideas about the planning, management, development and conservation of Winnipeg's rivers emerged from that conference. Among these was an idea to establish a special purpose agency to develop and manage Winnipeg's rivers. Later, the City of Winnipeg Act Review Committee recommended that a Winnipeg Rivers Corporation be established. In 1989, the Government of Manitoba released a discussion paper in which it proposed the framework for the establishment of a "Riverfront Corporation for the Winnipeg Region" (see Appendix 1). The Institute of Urban Studies organized the Second Winnipeg Rivers Conference to review the progress made since 1985 with respect to the planning and management of Winnipeg's rivers and to provide a forum for the discussion of the proposals contained in the discussion paper released by the Government of Manitoba.

In the Institute's view, the planning, development and management of Winnipeg's rivers encompasses issues of vision, jurisdiction, conservation and use. The success of the proposed Waterfront Corporation would depend upon its ability to address these issues. Consequently, conference sessions were structured around these topics. Moreover, it was thought that considerable experience had been accumulated by other Canadian cities in the planning and management of their respective river corridors, and that Winnipeg could benefit from that experience. Although many Canadian cities have undertaken initiatives to plan and manage their river corridors, it was obviously not possible to review the experience of each city. Presentations were invited from three cities--Edmonton, Saskatoon and Ottawa, each representing a different institutional model for the planning and management of the urban river corridor. Edmonton has relied entirely upon municipal planning to develop and manage its river corridor. Saskatoon has a special purpose agency for this purpose and Ottawa combines the efforts of a special purpose agency with those of municipal government. Altogether, these three models represent the dominant approaches used in Canadian cities to plan, develop and manage river corridors.

Presentations at the issue oriented sessions provided the context for the discussion of the Government of Manitoba's proposal to establish a Riverfront Corporation. In addition, the proposal was discussed in two presentations made by representatives of community groups. Attended by some 55

participants, including representatives of all three levels of government, the academic community and community groups (see Appendix 2), deliberations at the conference highlighted the following issues:

- **Vision.** A visionary plan for Winnipeg's river corridors is required and should unfold from a broad philosophical base which includes the current global environmental trends, the aspirations of the community and our understanding of natural processes.
- **Jurisdictional Issues.** All three levels of government are involved in regulating land, water and use in the corridor. At the local level, the urban and rural municipalities appear to have conflicting interests. A major issue relates to the problems created for downstream municipalities by Winnipeg's sewage disposal. It is not clear what Winnipeg and the provincial and federal governments are doing about the problem. Other issues include inadequacies in the enforcement of regulations governing water craft, preservation of natural areas, protection of natural drainage systems and prevention of pollution by non-urban uses.
- **Conservation and Development Issues.** These issues relate to finding solutions to Winnipeg's sewage disposal system, and to regulation of development in order to protect heritage resources, natural areas and public access to and along the river bank.
- **User Issues.** Three main issues identified by user groups are: the need to adopt an environmental management approach to the river corridor; the need to increase control of the corridor by the public as opposed to tri-level corporations which seem to take a corporatist approach that minimizes public involvement and input; and the need for greater attention to the concerns of riverbank property owners about activities which increase problems, such as slope instability.
- **Responses of Other Canadian Cities.** Edmonton has had limited success with its approach to employ an Area Redevelopment Plan Bylaw to manage the Corridor because the bylaw cannot address intergovernmental issues. Saskatoon's approach, which involves the creation of a special purpose agency (The Meewasin Valley Authority) to regulate and develop the corridor, has met with considerable success despite early problems caused by opposition to its powers. Ottawa's approach, recently formulated, involves the supplementing of efforts of a special purpose agency (The National Capital Commission) by the City's adoption of an Environmental Management Policy with certain specific measures for the river corridor.
- **Proposed Riverfront Corporation.** It was evident that in order for the proposal to proceed further, it would be necessary to involve the public and all levels of government in reviewing the proposal. In a panel discussion, three City Councillors agreed that the matter deserves greater consultation between all levels of government.

This volume includes the written papers presented at the Conference. We have been unable to include *all* papers because some speakers made their presentations from short notes and decided not to produce papers for this volume. The planning and management of urban river corridors is an emerging concern in Canadian cities, particularly in the wake of the recent public interest in the environment. We trust that this volume will be of use to those who must deal with this concern in Winnipeg and in other cities of Canada.

Brijesh Mathur
Assistant Director
Institute of Urban Studies

NOTES

[1]Ray Mann, *Rivers in the City* (Newton Abbot: David and Charles, 1973).

"TOWARDS STEWARDSHIP OF WINNIPEG'S RIVER CORRIDORS"

NOVEMBER 3-4, 1989

CONFERENCE SUMMARY

Mary Ann Beavis
Research Associate
Institute of Urban Studies

This was the second conference on Winnipeg's rivers sponsored by the Institute of Urban Studies; the first was "Urban Rivers--Expanding Our Vision" (1985). The idea of "vision" was also prominent at the 1989 conference, if only negatively, in that considerable disagreement still exists as to how we should "steward" Winnipeg's rivers. At the first Winnipeg Rivers Conference, participants recommended the establishment of a body to undertake development and management of the river corridor. In July, 1989, the Government of Manitoba announced its intention to establish a Riverfront Corporation and released a discussion paper (see Appendix 1). Participants at the 1989 conference were invited to express their opinions and air their concerns about the proposed Corporation.

Raymond Moriyama, O.C., of Moriyama and Teshima, Architects and Planners (Toronto), was the keynote speaker. Mr. Moriyama, whose firm prepared long-term plans for the Saskatoon river corridor and the Niagara Parks Commission, discussed the need for *philosophy* in long-term planning. River corridor planning should be visionary, universal, regional, site-specific, and affect everyone equally, taking seriously the health of the land, air, water and humans. The global ecological crisis must be taken seriously. For example, if, as many scientists believe, global warming is inevitable, higher temperatures will cause increased evaporation, droughts and water quality deterioration. Our decisions *now* will have a profound impact on the future.

One impediment to a coherent vision for our waterways is multiple jurisdictions. Representatives of the federal, provincial, municipal and regional interests in Winnipeg's rivers outlined the involvement of each in river regulation--a jurisdictional tangle not necessarily encountered in other Canadian cities. The Honourable Gerry Ducharme, Manitoba's Minister of Urban Affairs, said he hoped that the proposed Riverfront Corporation would bring in a new era of riverfront development through co-ordinated action by all levels of government.

Sessions on "Issues in Conservation and Development" and "Perspectives of Users" gave a wide range of viewpoints. Dr. Andy Lockery (Co-ordinator, Environmental Studies Program, University of Winnipeg) lectured on environmental issues. Somewhat surprising was his observation that Winnipeg has the *best* water quality monitoring in North America (if not the best water quality!), and that tertiary (chemical) sewage treatment, publicly perceived as an improvement on Winnipeg's present facilities, would probably harm aquatic life. Rod Tester (President, Manitoba Naturalist Society) and Ross Dobson (Greening the Forks) sketched the environmentalist approach to riverbank management; both agreed that

our rivers should be left as natural as possible. Elizabeth Ballantyne (RiverBankers, Inc.) expressed the concerns of riverfront property owners, especially riverbank erosion; students from the University of Winnipeg's Urban Workshop course ably presented an account of the effects of the many public uses of our rivers. Doug Clark (Program Manager, Riverbank Enhancement, Core Area Initiative) provided a "pro-development" perspective, with particular emphasis on the role of Winnipeg's rivers in recreation and heritage conservation.

The session "Canadian Responses to Riverbanks" rehearsed the city by-law approach (Edmonton), the special agency approach (Saskatoon) and the environmental approach (Ottawa). Rasheda Nawaz (Environmental Management Planner, City of Ottawa) presented an alternative to the isolation of "river corridor management" from other environmental issues--Ottawa's aim is to become a sustainable city.

In a special session on the proposed Riverfront Corporation for the Winnipeg Region, Heather MacKnight (Senior Planner, Manitoba Urban Affairs) explained the scope of the proposal, and responded to concerns about the corporation expressed by some conference participants, especially regarding public involvement and environmental matters. In the final session, Winnipeg City Councillors Evelyne Reese, Donovan Timmers and Ernie Gilroy responded to some key issues identified at the conference: jurisdiction, the environment and public participation. These last two sessions of the conference concentrated upon the provincial discussion paper related to the creation of a Riverfront Corporation. It was evident that in order for the proposal to proceed further, it would be necessary to involve the public and all levels of government in reviewing the proposal. The three City Councillors agreed that the issue deserves greater attention from all levels of government.

As the summary indicates, any "vision" which emerges for Winnipeg's waterways should take seriously "intangibles" like community involvement and heritage, both historic and natural. One conspicuous absence from the conference was any real discussion of the idea of "stewardship," which, after all, was the main conference theme. It would have been interesting to explore the differences between the notion of the stewardship of our rivers, with its implications of care and responsibility, and the more usual commercial terminology of resource development, management and exploitation.

INTRODUCTORY ADDRESS

The Honourable Gerry Ducharme
Minister of Urban Affairs
Province of Manitoba

Honoured guests, ladies and gentlemen: I am pleased to have been invited to speak to you today. The Institute of Urban Studies is to be congratulated for its time and effort in organizing such a timely conference.

We have come a long way in the last fifteen years to becoming good stewards of our rivers. Planning for our rivers really began in 1975, when the Province undertook a tourism and recreation study of the Red and Assiniboine Rivers. This study led to the signing of the Canada-Manitoba Agreement for Recreation and Conservation (ARC), and the adoption of a Master Plan for the Red River Corridor.

The thirteen million dollar ARC agreement resulted in the implementation of eighteen successful riverfront projects along the Red River. These projects included, among others:

- St. Boniface Dock;
- Stephen Juba Park;
- River Road Enhancement;
- Netley Creek Nature Area; and
- The Forks National Historic Site.

In 1986, the second Winnipeg Core Area Initiative Agreement was signed. The Agreement marked the first initiative on the rivers by all three levels of government. Two programmes under the Core Area Agreement were directed at the rivers: a twenty million dollar programme to redevelop the CN East Yards (The Forks), and a five million dollar programme to enhance the Core Area's riverbanks. Substantial progress has been made in implementing both programs.

In 1985, Manitoba announced its own riverbank development program. In the area of development, we have constructed Bluestem Nature Park on Omand's Creek, and have initiated the preparation of a development plan for the south Legislative grounds.

In the area of regulation, the Province has adopted and begun implementing a ten-point action plan to improve and streamline river regulation. As a result of this action plan, Boating Restriction Regulations under the Canada Shipping Act have been adopted for Winnipeg, a new part in the City of Winnipeg Act on waterways is being developed, and a Provincial regulation on pollution from boats and marinas is being prepared.

In addition to this Riverbank Development Program, two other major Provincial initiatives have been contributing to improved stewardship of our rivers. The Heritage Resources Act, enacted in 1985, ensures that significant heritage resources are assessed and protected prior to any development taking place. The Environment Act, enacted in 1988, provides for a comprehensive review of the environmental

impacts of projects, including those in Winnipeg. Prior to the legislation, Winnipeg was exempt from environmental legislation. Staff of the Province and City now meet regularly in an effort to bring the City into conformity with the Act.

Clearly, we have made progress in becoming good stewards of our rivers. But have we gone far enough? Our government believes the time has come to make a long-term commitment to the rivers.

Short-term programmes like ARC and the CAI, and separate legislative initiatives, are not enough. We need comprehensively to plan and manage our waterways for the future. It is for this reason that the Province has proposed the creation of a Riverfront Corporation for the Winnipeg Region.

We believe the Corporation should be a partnership of government, business and the community. It should help us to define a long-term vision for our rivers, and programmes to implement this vision. It should place equal emphasis on conservation and development. It should undertake and encourage research on our rivers. It should promote our rivers locally and nationally. And it should provide a long-range planning framework under which all three levels of government can effectively co-ordinate waterway regulation.

In the 1980s, we began to realize the potential of our rivers and the need to become good stewards of the resource. In the 1990s, we need to make stewardship of our rivers a full-time job. I believe the Province's proposal for a riverfront corporation will go a long way to achieving this goal.

I wish you luck over the next two days, and look forward to hearing the results of your discussions.

THE PROVINCIAL INTEREST IN THE WINNIPEG REGION'S RIVERS

James O. Beaulieu
Deputy Minister of Urban Affairs
Province of Manitoba

I would like to begin by thanking the Institute of Urban Studies for taking the initiative to organize this conference and for inviting the Department of Urban Affairs to participate.

As you know, the Provincial Government recently released a discussion paper outlining a possible structure for a Riverfront Corporation for the Winnipeg region. This proposal is a response to the ideas put forward by the public, a consultant's review of the City's Rivers and Streams Authority, and the Review Committee's Report on the City of Winnipeg Act. It also results from the experiences of the three levels of government with the ARC and the Core Area's Riverbank Enhancement Program.

I would like to stress that it is a *discussion paper*. We are anxious to hear your ideas about the proposal--what you like, what you don't like, and what you would like to see changed. In addition to any comments you may pass on during the conference, I would also invite you to write to the Department.

Now, what are the Province's interests in the Winnipeg region's rivers? The Province's interests generally can be divided into two broad categories: *riverfront enhancement* and *regulation*. I will first address riverfront enhancement.

To date, most of the riverbank initiatives in the Winnipeg Region have focused on the development of specific projects. They also have been limited by program budgets that were greatly dependent on resources from the public sector. The Province sees a real need to assess what exactly we want for the rivers in the long term (our vision), to determine a comprehensive strategy for achieving this vision, and to put a rivers management plan into place.

However, the development of a rivers management plan cannot be undertaken independently. It requires the co-operation of all levels of government, the community, interest groups and business. There is a need to look at:

- How we can balance the demands for development with the needs for resource conservation?
- How we can finance the initiatives?
- How we can co-ordinate regulation of the resources?--and
- How we can make our riverfronts interesting and fun places to be?

The Province believes that a co-operative planning process would result in at least five direct benefits to the Winnipeg region. First, in the area of *resource conservation*, planning would help to ensure that significant natural and heritage resources are identified and programs developed for their preservation, or, in some cases, restoration. Probably one of the greatest challenges facing this region into the 1990s will be to address the problem of river water quality. In this respect, we need to identify

the role we want the rivers to play in the long term and to develop programs that enhance the water quality to accommodate these uses.

Secondly, in the area of *recreation*, planning would give us the mechanism through which recreational opportunities could be identified and developed. Riverfronts have the great potential to deliver a wide range of low cost recreation facilities. These facilities can include trails for walking or cycling, docks and launches for boating, cleared river ice for skating, cross-country ski trails, interpretive plaques, look-outs and similar facilities. The planning process is the means through which we can identify and accommodate this broad range of opportunities.

Thirdly, it is through planning that *economic development*, compatible with our resources, could be undertaken effectively. Across North America, the economic benefits of riverfront revitalization have been demonstrated. Riverfront enhancement can be used to induce positive change in adjacent areas, in neighbourhoods and in the downtown. This is especially true when a riverfront is unused or under-used. When properly planned and managed, this new development can bring to a community:

- more tax revenue;
- new jobs;
- spin-off investments;
- recovered property values; and
- community pride.

Riverfront revitalization can also indirectly maintain or strengthen industry or business in a community by improving the local quality of life. It can also directly increase local and regional tourism.

Fourthly, planning would result in improved *public access and safety* related to the riverfronts. It is an historical fact of life that a lot of our riverfronts were lost to roadways, rail lines and private development. By looking comprehensively at the riverbanks, and with some vision, key public access points can be identified and developed, and vehicular and pedestrian routes can be clearly defined, separated, marked and lit. The increased attraction and use of the riverfronts also provides its own safety with the addition of more "eyes on the street."

Finally, through planning, *research* related to the dynamics of the river environment and to the people who use it could be better developed. A comprehensive and centralized data base is essential to effective and efficient river problem solving. To date, research on our rivers has lacked focus and co-ordination. Again, I would stress that there is a need for a co-operative planning effort by all concerned, because our riverfront plans must include the different perspectives of all interested parties--the Province, the City, other municipalities, the public, special interest groups and users.

And that brings me to the other interest the Province has in the rivers: their *regulation*. Each level of government has a different interest in our rivers, depending on its defined authority, its mandate, and its public policy objectives. For the Province, this means that we have a direct legislative interest in:

- the environment;
- water flow and use;
- flooding and dyking;
- fisheries; and
- heritage property.

We also have an interest in land use, but have largely delegated this authority to the municipalities.

Generally speaking, the Province regulates where an interest cannot be limited to a municipality's corporate boundaries, where there is a spill-over effect on its neighbouring municipalities, or where the province is pursuing other policy objectives. Environmental quality, water flow, flooding, fisheries and heritage property all fall within this category. The Province has focused on streamlining and improving regulations so the three levels of government complement their efforts. In this way, each level of government can retain its legislative interest, while also ensuring the most effective management of the waterways.

The Province is looking to the future. We know we need to plan and regulate our rivers more effectively. And we know it cannot be done alone. We have proposed a Riverfront Corporation as one way in which all interests can come together for discussion and in which we can act together to enhance our rivers.

MUNICIPAL CONCERNS

Mr. Jack Oatway
Chair
Manitoba Association of Rural Municipalities
Winnipeg Region

Stereotypically, the farmer in the Winnipeg area is "one of those irresponsible citizens that burns stubble." We did not burn stubble on *our* farm this fall.

What is the Association of Rural Municipalities in the Winnipeg Region? When the various jurisdictions--St. James, the Kildonans, etc.--making up Winnipeg were amalgamated into what was then known as Metro Winnipeg, a green belt around Metro was created. Within this area, the Metro government had the authority over zoning, planning, and so on (and in a number of instances made decisions quite contrary to the wishes of the councils and even the residents of that jurisdiction). A tax was even imposed on areas in the green belt, payable to the Metro government. In order to have a strong voice, in 1965 nine Rural Municipalities formed what was then known as the Metro Additional Zone Municipal Association. In order to reflect subsequent changes, the name has been changed to the Association of Rural Municipalities, Winnipeg Region. We have not received or even asked for any government funding. Please do not confuse this Association with the Union of Manitoba Municipalities based in Portage la Prairie.

The member municipalities of the Association were pleased to have been given a copy of the Discussion Paper "Towards a Riverfront Corporation for the Winnipeg Region" (Manitoba Urban Affairs), and appreciate the opportunity to respond to it. The membership has not yet had an opportunity to discuss this paper in detail, but I am confident that in due time a response will be given to the Minister. Any remarks that I make here today are not necessarily final.

We note that Urban Affairs, as the name indicates, deals with urban issues. The Discussion Paper also includes the Rural Municipalities surrounding Winnipeg. At a meeting which I attended as recently as last night, members of the Councils of Richot, St. Andrews, St. Clements, West St. Paul and East St. Paul informed me that they were not aware of the Conference being held here today. If there is a sincere desire to make these RMs part of the Riverfront Corporation, one certainly would have thought that they would have been invited. I understand that the Discussion Paper was sent to these municipalities. Although these municipalities are not named specifically in the Discussion Paper, they are mentioned in a letter dated August 3, 1989. If this is true, it certainly does not contribute to a harmonious beginning.

The Red and Assiniboine Rivers are not just Winnipeg's. How they are managed and cared for--what happens to these waters--is a matter of concern to all Manitobans, and particularly to all those in the watershed of the rivers. The rivers do not belong to any one jurisdiction. We believe that they are here for all of us to use and enjoy.

Are we concerned about water quality, wildlife, erosion, water levels, public use, etc.? Indeed we are--they affect each of our jurisdictions in one way or another. We question whether the Discussion Paper as presented goes far enough. Should not RMs like Franklin, Montcalm, Morris, Portage la Prairie, and South Norfolk, to name a few, be mentioned? The rivers either pass through or border these communities, which are affected, at least indirectly, by how the rivers are managed.

As to *water quality*--we know that by the time the water has passed through the north boundary of the City of Winnipeg it is poorer than it was at the southern limit. They say "In an underdeveloped country don't drink the water, in a developed country don't breathe the air." I believe that Canada is considered a developed country, but when it comes to water quality in the Red River, the reverse applies! We realize that we cannot lay all the blame for poor water quality on the City of Winnipeg, but Winnipeg does its share. We are aware that Winnipeg is doing many things, improving, modernizing, and that the financial costs are high. But ask Selkirk residents if Winnipeg is doing enough. You know as well as I do that the answer would be "No." We recognize that other communities affect the quality of our rivers, especially the agricultural community, agricultural production being the main industry of the rural area. Chemical insecticides and herbicides are a problem. Although there is a growing trend to limit the use of such products, their use does contribute to the deterioration of our waters. This is an issue somewhat removed from the Discussion Paper, but I would like to make a point: responsible farmers do not apply more chemicals than recommended by the manufacturers, and in many cases they use less than recommended, due to the cost. Those on small holdings, however, tend to apply greater amounts than necessary, on the assumption that more is better.

As regards *erosion and unstable river banks*, there is an instance of an unstable, eroding bank along the Red River in the RM of Richot that is too expensive to repair. The costs of correcting such situations are often much greater than a single municipality can afford.

Smaller rivers, creeks and drains are addressed in the Discussion Paper. I do not know if all such waterways in the area under discussion have been identified. I would consider Grassmere Drain to be important, but it is not mentioned. The Grassmere drains part of Woodlands, Rockwood, Rosser and West St. Paul, reaching the river at Middlechurch. These creeks and drains wending their way through the city are not just pretty little streams, breeding grounds for mosquitoes, or nuisances to industry. Omand's, Sturgeon and Truro Creeks, for example, are natural water courses which are essential for carrying excess water from agricultural areas to the river. The RMs have very serious concerns as they become aware of owners and developers of property in these areas wanting to build over or next to such creeks and drains. Creeks and drains are just as important to the areas they serve as the Red and Assiniboine are to Winnipeg. Without these smaller waterways, the Red and Assiniboine would

deteriorate. This alarms us, and it alarms us much more when some in positions of authority appear in some instances to endorse the wishes of some developers or landowners bordering on these streams. Admittedly, Water Resources (Government Services) monitors the flow, so that the volume is not reduced below a certain level. But this procedure can be questioned--Sturgeon Creek is a prime example.

As to *accessibility to the public*--the "public" includes the people of Winnipeg, rural residents and tourists. Rural people like to fish just like urbanites. We also like to boat, and to take part in other water sports like water skiing. We have a great interest in making the waterways accessible to the public.

Within the city limits, and particularly important, outside, the river is used for irrigation, agriculture, aquatic life, wildlife, and industrial and domestic uses where quality and quantity are factors.

In the Discussion Paper, three options are noted as to the type of co-operation needed to get this Riverfront Corporation started. On reviewing the options, it appears that option two would be the direction to take. The paper also outlines what staff would be necessary for an effective organization. I would be somewhat remiss if I did not mention that the Association has serious concerns as regards this matter. In its response to the White Paper on changes to the City of Winnipeg Act, the Association did not consider it necessary to set up another level of government to deal with additional zone issues and the City of Winnipeg. It is unlikely that the Association, fearing another bureaucracy, would be very receptive to this part of the Discussion Paper.

The *financial aspect* is very important. Perhaps the City of Winnipeg has the resources. However, the RMs do not have the tax base for expenditures in the millions. If a RM becomes a signatory to an agreement, I do not believe that the tax resources needed to cover the possible costs as outlined in the paper will be available. This is an area needing further discussion.

With regard to accounting, remuneration, etc., we believe that there is time to refine that area. To initiate this Corporation and make it functional, and to get a commitment from the RMs, will require further consultation.

In order to have a compatible, successful organization, all participants must be treated equitably in co-operation with Winnipeg. Let us have a serious, honest, open discussion, giving those interested a chance for input. Let us evaluate the results.

I do not know whether this Riverfront Corporation, as the name implies, should be limited to those RMs in the Winnipeg area. We all need the rivers, whether we live in the city or the country. Is there any beauty in a riverbank with a high-rise, or a business complex? Perhaps to a builder or developer, but not to me. If you can walk along the edge of a river on a quiet evening, hear the birds, frogs, and all things natural to the river--that is peace. If the Riverfront Corporation can improve and help to restore or maintain these conditions, it will be worth the effort.

The earth is one, but the world is not. We all depend on one biosphere to sustain our lives. Yet each community, each country, strives for survival and prosperity, with little regard to its impact on others.

ENVIRONMENTAL ISSUES IN THE WINNIPEG RIVER CORRIDORS

Dr. Andy Lockery
Department of Geography
University of Winnipeg

ABSTRACT. This paper addresses two issues. First it examines the quality of the water and second the manner in which the river corridors can be environmentally enhanced.

The changing water quality of the Red and Assiniboine Rivers is examined in detail. The primary sources of contaminants are identified and suggestions are made with regard to mitigation of current problems. A similar assessment is made of the environmental benefits which can be provided to the City of Winnipeg by her river corridors.

In essence, the paper proposes changes and improvements to existing water quality management which in turn will greatly improve the attractiveness and success of the river bank and river use enhancement projects.

INTRODUCTION

Traditionally, the Winnipeg region has made many uses of its rivers. These include commercial and pleasure boating, sport fishing, recreational water sports, irrigation, drinking water (humans and livestock), sewage and waste disposal. Finally, the monotony of the prairie landscape is broken by the rivers in the city. They are the scenic highlight of downtown Winnipeg, and the real estate value of river property attests to the value ascribed. Part of the aesthetic pleasure of being a Winnipegger or a tourist in Winnipeg is to stroll along the riverbanks, although the latter use has been somewhat restricted by private ownership.

This paper reviews the state of Winnipeg's greatest scenic attractions in the light of the above statements. The first part deals with a scientific appraisal of water quality in the rivers as it affects their uses, and the second part looks at the planning issues and their environmental priorization.

SCIENTIFIC APPRAISAL

Water quality in the Red and Assiniboine is in fact fairly typical of rivers flowing through a city the size of Winnipeg. There are simple ways of assessing the quality that are internationally standardized:

- BOD: Biochemical Oxygen Demand
- DO: Dissolved Oxygen
- Coliform Bacteria

These tests, together with tests for many other contaminants, enable us to assess the overall water quality of the Red and Assiniboine Rivers.

BOD records the amount of oxygen which is required to break down the organic content of effluent (sewage, human or livestock). International standards vary slightly, but a widely used table for natural water bodies is as follows:

BOD		
1mg/L	■	Very Clean
2mg/L	■	Clean
3mg/L	■	Moderately Clean
4mg/L	■	Doubtful Cleanliness
5mg/L	■	Poor

The province of Ontario has a standard of 4mg/L BOD as the maximum acceptable for natural water bodies.

Winnipeg's three sewage treatment plants endeavour to keep the BOD of their effluent entering the river to less than 10mg/L, and then rely upon the river to dilute that effluent to acceptable standards. The following figures for 1989 indicate the range of levels for each treatment facility:

West End	15-65 mg/L
South End	< 10-26
North End	< 10-33

Occasional short-term outfall readings as high as 125 mg/L BOD can occur from sewage overflows during wet weather events.

While the above values indicate a level of BOD values higher than the accepted norm, the levels of Dissolved Oxygen (DO) provide us with a measure of the rivers' ability to dilute and break down this effluent without harm to the ecosystem.

Both aquatic animals and plants depend upon DO for survival. The solubility of oxygen (O_2) in water is dependant on temperature:

Dependant:	*DO (Maximum possible)*
0°C	14.6 mg/L
5°C	12.7 mg/L
10°C	11.3 mg/L
15°C	10.1 mg/L
20°C	9.1 mg/L
25°C	8.3 mg/L
30°C	7.5 mg/L

In July 1989, the North Perimeter Bridge showed a value of DO 6.7 mg/L. Rarely did values fall below 5, and at Fort Garry the value was close to 10 mg/L.

Trout require in excess of 10 mg/L, while carp can survive with levels as low as 1 to 2 mg/L. In general, the dissolved oxygen figures suggest that the city does not overburden the rivers with effluent.

FAECAL COLIFORMS

Faecal coliform bacteria provide a measure of the presence of pathogens in the water which are harmful to human health (e.g., polio, typhoid, amoebic dysentery, infectious hepatitis). Drinking water must contain no coliform bacteria, levels should never exceed 200/100 mL for swimming, and the Manitoba Environment Council has recommended that faecal coliform counts should not exceed 1000 MPN*/100 mL in more than 5 days per month.

The following table of faecal coliform values for Selkirk, Manitoba indicates a serious problem:

- 5,000 MPN/100 mL exceeded at Selkirk **270** days in the year
- 10,000 MPN/100 mL exceeded at Selkirk **62** days in the year
- 50,000 MPN/100 mL exceeded at Selkirk **15** days in the year
- 150,000 MPN/100 mL exceeded at Selkirk **4** days in the year

Faecal coliform bacteria levels indicate a serious water quality problem in Winnipeg and downstream; during the 1980s, the months of August and September averaged 147,000 and 128,000 mpn/100 mL respectively. Very much higher readings occur when sewage overflows follow heavy rains.

Chlorination of the effluent from each of the three sewage treatment plants at a level 8 mg/L would eliminate this problem, but at the expense of the environment, since very low levels of chlorine will destroy the taste buds of fish, and a level of 1mg/L maintained for 3 weeks is sufficient to cause irreparable damage to the gill mechanism of fish.

It should be pointed out at this stage that concerns exist worldwide about levels of water contaminants like DDT, PCBs, dioxin and pesticide residues. All of these contaminants have been monitored for the Winnipeg rivers and found to be well below international standards, and we should be relieved that our primary contamination is from local sewage and *can* be reduced.

SOLUTION

The city of Winnipeg successfully treats 98 percent of all its sewage. In addition, the city is currently midway through an upgrading programme costing approximately $160 million, which will see the capacity of the South End plant doubled, and the West End lagoon system replaced by a totally new and year round efficient treatment facility.

The real problem is the combined sewer--storm sewer system which still exists in 50 percent of the city. Although this approach is by no means unique to Winnipeg, it does explain the very high levels of untreated sewage which reach the rivers during the heavy run-off following wet weather events.

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*MPN = most probable number.

The present incorporation of retention ponds in city housing developments is not solely for aesthetic reasons, as they reduce suspended solids by 80 percent, BOD by 65 percent and bacteria by 68 percent before reaching the rivers.

It would cost the city $1 billion to separate the sewers from storm sewers in order to reduce Winnipeg's sewage problem. The use of chlorine to eliminate the coliform bacteria and render the effluent harmless to humans would only cost $8.4 million a year, although local environmental side effects could occur. Recently, the city of Chicago developed an underground holding facility to trap wet weather run-off and hold it until after peak flows for eventual treatment. Certainly it would be to Winnipeg's advantage to investigate this third alternative to the expensive separation of the sewers ($1 billion), or the environmentally less acceptable disinfection of the effluent.

Finally, in this scientific assessment of the Winnipeg rivers and their water quality it is necessary to point out that both rivers are naturally muddy. No amount of sewage treatment and control will change the colour of the water. For example, even in winter the Red River carries an average silt load of 60 tonnes a day, and up to 60,000 tonnes per day during peak spring flows. During the 1989 drought, the month of August still saw a silt load of 250 tonnes a day being transported through the city.

However, it would be a very serious error of judgement on the part of city officials if they were to use the fact that the rivers look dirty to justify allowing continued contamination on a level demonstrated by the figures in the above section of this paper. In fact, this makes it even more essential that every effort be made to clean up the river pollution to avoid the risk that people's perception of the river as dirty becomes a reality. It is worthy of note that one's perception of reality is frequently far more influential than actual reality in controlling ones response to a wide variety of issues, including the environment.

PLANNING ISSUES AND THEIR ENVIRONMENTAL PRIORIZATION

Winnipeg has been notoriously backward in using its river corridors to enhance the city for both its residents and for tourists. In part, this absence of a central planning effort has been the result of large portions of river bank being held by private owners. Gradually, however, the city has acquired sufficient land to support some initiatives in the mid-1980s. Possible uses for the river corridors include:

- riverside walks and cycle paths, fishing access;
- pleasure boating and boat rentals;
- winter corridor for recreation, cross-country skiing, skating and mountain biking; and
- a year round commuter route.

The cost of clearing snow from city streets in the winter, year round parking problems and rush hour traffic congestion could all be reduced by using the river corridors for commuting. Hovercraft operate year

round, do not displace water so do not contribute to bank erosion, and function as efficiently on ice and snow as on water. The route, because of its scenic appeal, would undoubtedly be popular. This approach should be evaluated further.

It is only fair to the city to acknowledge that dirty water, private ownership, muddy riverbanks, bank instability and the harshness of our winters have all been factors in the city's reticence to promote the river corridors. However, it is vital to the future of Winnipeg and its image outside the province that the rivers be included in all the planning initiatives now being undertaken. There is a clear need for downtown marinas to serve private commuters, to permit rentals of motorised and human-powered vessels. Speed zoning on both rivers is essential to encourage canoeing without fear of being swamped. Fishing access needs to be improved. Bicycle paths for commuters to separate bikes from traffic would also be extremely popular with tourists, as evidenced by the examples of Vancouver, Edmonton and Ottawa. Winnipeg is an ideal city for summer cycle commuting; it is flat, has warm, dry summers, excellent wind protection from trees and buildings, and in fact possesses more bicycle stores than Calgary, Regina, Saskatoon and Edmonton combined. The federal government declared cycling the family recreation activity of the '80s, and although Winnipeggers have recognised this in their buying habits, our city has not taken advantage of the funds available to provide citizens with safe functional paths.

In summary, we have a resource, largely ignored and somewhat abused, but nevertheless still there and still waiting to be intelligently incorporated into Winnipeg's future plans. This paper has examined some of the issues and problems and made several proposals. In every case, resolving these problems and acting upon the proposals would greatly enhance the pleasure Winnipeggers would gain from the beauty of the city's rivers. All cities have the option of allowing their rivers to deteriorate into open sewers with associated health risks to inhabitants, or of creating an integrated plan whereby the rivers are both scenically enhanced and functionally valuable. All the evidence suggests that Winnipeg's rivers are at a crossroads, and city planners must act to ensure that the latter route is the one followed.

SOURCES CONSULTED

Beck, A.E. *PCB and Pesticide Residues in Fish from the Red River, Manitoba, 1978-1983.* Water Standards and Study Report No. 86-2, 1986.

Braidech, T.E. and D.J. Munro. *Red River Toxic Profile Study (Pesticide).* City of Winnipeg Report, 1988.

City of Winnipeg Daily Reports on Effluent Entering the Red and Assiniboine Rivers, 1989.

Lockery A. R., T. Gavrailoff and D. Hatcher. "Lead Levels in Snowdumping Sites along Rivers in Downtown Winnipeg." *Journal of Environmental Management*, 17 (1983): 185-190.

MacBride, B.D. *A Continuing Programme for a Stream Pollution Control.* Internal Report, City of Winnipeg Waste Water Division, 1989.

Manitoba Environment Council. *Water Quality Objectives.* 1978, pp. 131-140.

Pollution Abatement and River Quality. Vol 1. McLaren Consulting, Report to City of Winnipeg, 1979.

Report of the Chairman of the Red River Water Quality Senior Technical Advising Committee. City of Winnipeg Report, 1982.

ISSUES IN CONSERVATION AND DEVELOPMENT

Doug Clark
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Manager, Riverbank Enhancement
Core Area Initiative

Good afternoon ladies and gentlemen. On behalf of the Core Area Initiative and the City of Winnipeg, I wish to thank the organizers of this programme for the opportunity to address you briefly on the topic of development as it relates to Winnipeg's River Corridors.

It has been 10 years since I last lived in Winnipeg, and while I thought I knew most of the places to see and go, a lot has happened here in that time. There has been a considerable amount of new development. There has been new development of old buildings, and in the heritage precincts of the City. New excitement and desire seem to exist in both residents and the elected officials to make Winnipeg a greater urban centre. A lot of this interest currently centres around the downtown and the new Forks development.

Development is not necessarily a good thing. I, however, will present this topic from a pro-development viewpoint, because I believe that any worthwhile development involves a process of review, analysis, counter-review and a subsequent synthesis of ideas before any real construction occurs. A healthy review process allows for positive growth to happen, and lets many people participate in the process. But is this a new feeling, a new direction, or are we simply in a period where we are seeing history repeat itself once again in terms of our river valleys?

Michael Hough, noted landscape architect and author of *City Form and Natural Process* describes how the sequence of site examination, evaluation and ultimately action should inherently determine the uniqueness of the place. Not every site in Canada should necessarily look like some place in the sunshine belt of the United States. The goal, then, in any development is to determine how the unique and distinctive elements of each place can be manifested in an appropriate and environmentally sensitive manner.

I am proposing that the process of development can simply be categorized into four basic areas. (A more elaborate and detailed description is contained in a report entitled *The ABC's of Waterfront Planning* distributed by the Urban Land Institute). These areas would be:

- Environmental
- Jurisdictional
- Use and Users
- Vision

With these four issues in mind, we begin the journey of riverfront development in the Winnipeg Region by examining the history and growth which have occurred since the land was first discovered. I hope that as we examine the phases of development, we shall begin to assemble the sequence of events that has put us in our current position.

I have had to draw on the resources of others to help me explore a little bit of the past, to see if in fact we have progressed in our attitude toward development. Someone once said, "We are the inheritors of the past and ancestors of the future." Let us begin to explore this area.

Andrew McDermot arrived at the Red River in 1812 from Ireland, as part of the second group of Selkirk settlers. It was reported back to Lord Selkirk that "The country exceeds any idea I had formed of its goodness. I am only astonished it had lain so long unsettled. The land is most fertile." The speculation increased and interest was fostered with respect to the resources which were available to the incoming settlers. In fact, in 1870, McDermot noted that "the possibility of conducting agricultural operations, at a distance of more than two miles back from the river has not yet been practically tested."

By 1860, the village named Winnipeg began to be known in the West, but the name Fort Garry was known in story on both sides of the Atlantic. Five hundred acres of land were marked out around the Fort as camping space for all who came to trade with the "Company."

By August 23, 1870, the Red River Colony era ended.

The Honourable Adams George Archibald, the first Lieutenant Governor of Manitoba, arrived in a birchbark canoe from Pembina, and established himself in Fort Garry on September 2, 1870.

The Selkirk settlers, each family farming the long narrow lots fronting on the River, formed an important part of the community. The most numerous element on the Red River was that of the French speaking people, the Métis and *coureurs de bois* from Québec, the buffalo hunters, fishermen and drivers of Red River Carts.

In 1871, a vanguard of eight men and women travelled to Winnipeg by raft from Chicago and St. Paul. The Red River was in spring flood and carried them rapidly into Winnipeg.

In 1872, the steamer Selkirk appeared on the Red River.

In 1873, Winnipeg was incorporated as a City.

By 1874, there were seven stern wheel steamers plying the Red. This marked the decline of the ever-creaking Red River Cart.

There was great excitement in October 9, 1877 when the stern wheeler Selkirk appeared, towing a barge, on which were the decorated Lady Dufferin and several flat cars.

At the end of 1878, after much political arm-twisting, Manitoba MPs were successful in seeing the Pembina rail line completed between St. Paul, Minnesota and Winnipeg. However, the City did not have

the promise of the Federal Government that the Canadian Pacific rail line would be built through the City. Current discussion suggested that it would go northward through Selkirk.

However, a delegation to Ottawa persuaded Prime Minister Tupper that if the City built a bridge across the Red River, his government would build the colonization line. The crossing at Point Douglas was financed by raising approximately $300 thousand. In January 1880, tenders for the Louise Bridge were let, and construction began.

As deals were struck, and plans were made to reallocate City lands for railway uses, Winnipeg's role as the central transportation route in Canada was guaranteed. By 1881-1882, all the ingredients were in place to assure that a boom could occur.

Principal Grant of Queen's College wrote this about Winnipeg in 1881:

> The coming and going at the railway station combines the rush of a great city with all the characteristics of immigrant and pioneer life. But instead of entering Winnipeg by Railway it is far better to stop on the east side of the river and see the quaint French suburb of St. Boniface and Archbishop Taché's Cathedral and College. We can then cross by the St. Boniface steam ferry and take a look at the City in a more leisurely way.
>
> Even at the landing, the first thing that strikes us is that incongruous blending of the new and the old. In this brand new city a historical society, a first rate club, colleges and cathedrals have sprung up, but you find at the landing that water is drawn from the river by the time honoured "hauley system" and sold by the gallon. Here is old Fort Garry, but its glories have departed. Once it was the centre of the HB Co's life and the life of the North West. Its walls and bastions were a symbol to the Indians and ought to have been saved as a memorial of the olden time, but progress is relentless. Progress abolished the walls and gates of Quebec. How could Fort Garry expect to be preserved, except in a picture.

By 1913, there were four major railways entering the City at different points, each with their own yards and shops.

Historically, there is little question that the rivers were major transportation and settlement corridors. They provided an opportunity where anyone could travel from one place to another. In 1910, the Federal Government decided that the locks at Lockport would be built in order to get enough depth of water safely to navigate through the St. Andrew's Rapids. Winnipeg's business elite promoted the intent as necessary to ensure transportation to Hudson's Bay.

At this time, with the creation of a merchantable waterway, the City looked at the development of a proper landing place for river and lake craft. Selkirk took on this role and docking areas there were constructed. In July 1912, the City set up a harbour commission which appealed to Ottawa for more funds. Unfortunately, even after committing $2 million to the Lockport project, it became apparent that little effort had gone into the planning of navigational charts, lights at the docks or crib work.

While tonnage increased for a period of time, it is noted that with the competitive shipping rates of the railways that: "By 1914, Winnipeg had become a Railway City, and its rivers, the sole natural adornment of the prairie city were left in neglect."

Nevertheless, the investment was not without gain. In order to preserve its position, the City was now secure that it had a link with Selkirk, the head of an inland navigation system. Unfortunately, Selkirk would not be able to benefit at Winnipeg's expense, and the City resumed its commercial enterprise position by turning its back on the rivers and by concentrating on the railway resources.

While all this was going on, however, the establishment of a Public Parks Act in 1892 and the creation of a Public Parks Board in 1893 did much toward preserving some river-edge land for other public needs. In the first year, four parks were purchased: Victoria Park, Fort Rouge Park, Central Park and St. John's Park. While three of the four are still in existence, it was with great emotion that in a public address in 1958, William Douglas, a former Parks Director, proclaimed loudly:

> I have never forgiven the City Council for selling Victoria Park to City Hydro. Where once existed in the very heart of Winnipeg, a real beauty spot, on the bank of the Red River, we now find a gigantic commercial building, smoke stack, coal dump, smoke and soot. This bit of land was part of the first piece of cultivated soil in the Canadian West. Originally it stood just outside the picket stockade of Fort Douglas. It was known as the Colony Farm, and produced food for the old settlers.

But enough of the past, what are the issues of today? If in reflecting on the past we can better image the future of tomorrow, then progress has been made.

In this day and age, riverfront lands are viewed as being desirable for a wide range of uses. The key to any successful long range plan is to consider what best suits each area. Not all lands should necessarily be retained as open park, or developed as parkway. As such, we begin our analysis through a review of the following four issues:

1. **ENVIRONMENTAL**
   - Slope Stability/Geotech and Hydrological of Rivers and Streams Authority;
   - Climatic;
   - Natural Plants and Wildlife;
   - Water levels: Normal 7340, Drawdown 727.0, Flood 745; at 743 the floodway kicks in.

2. **JURISDICTIONAL**
   - Ownership

- Responsibility
- Operation and Maintenance
- Zoning/Regulation

3. **USERS**
   - Active-Passive
   - Ownership
   - Public Participation
   - Access

4. **VISION**
   - Goals and Objectives
   - Fit and Balance
   - Long Range Planning
   - Historical Past

No definite solutions can be achieved by viewing the complex issue of the City's rivers from one perspective. Nor should development ever occur in the river ecosystem without an impact analysis which examines all of the proposed features and their impact on nature. As in most development, the elements of "balance" and "fit" are critical to the long term success of physical intervention in a natural system.

A BOLD VISION FOR WINNIPEG'S RIVERS**

Elizabeth Ballantyne
RiverBankers, Inc.
Winnipeg

"To foster awareness and understanding of Winnipeg's riverbank environment, and to protect that environment for this and future generations."

SUMMARY OF RECOMMENDATIONS

1. **An Integrated Approach: The Resource Concept**

   Build the programme for the management of the rivers on an **integrated approach** to the rivers based on the Resource Concept. While specific responsibilities may be delegated to various areas of government, there must be a mechanism for ensuring that there is effective co-ordination, and that no aspect of rivers management is being ignored due to a lack of designated responsibility.

2. **A Winnipeg Rivers Development Corporation**

   Establish a corporation with the mandate to develop public lands, conserve natural and heritage areas, and provide interpretive experiences for the public, **concurrently with, and not before,** the other elements of the total rivers management structure.

3. **Research into River Dynamics**

   Develop a plan for embarking on and maintaining a long-term **research programme** into the dynamics of the rivers, with the findings used as the basis for developing a **bank protection strategy** for public and private lands to protect the river resource for future generations.

4. **A Bold Vision for Our Rivers**

   Take advantage of the opportunity we have to turn our rivers into an asset that will give Winnipeg international acclaim. We can do this only if we launch the new era for the rivers with **a great vision** of what they can be, a vision which the community helps to shape.

5. **The Rivers Management Agency**

   Establish a rivers management agency with the responsibility for **integrated management** of all aspects of the rivers and their uses.

INTRODUCTION

In the past three years, there has been considerable discussion about the future of Winnipeg's rivers at an administrative and political level. The City of Winnipeg Rivers Management Committee, with its specific mandate, has evolved out of the fabric of previous committee activity and review by the Board

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**The key portions of this document were originally submitted to the City of Winnipeg Rivers Management Committee in 1989.

of Commissioners. Its members are to be commended for their zealous approach to solving some of the most urgent regulatory problems.

It is clear that the provincial government has its own agenda for river management policy. The *10-Point Action Plan* announced last fall was presumably an interim strategy pending finalization of plans for other initiatives, such as an agency for river management as described in the February 1987 *Discussion Paper on Proposals for Changes to the City of Winnipeg Act.*

RiverBankers has been following this evolution since the days of the City of Winnipeg Act Review Committee and the Rivers and Streams Ad Hoc Committee. We are very pleased to see energy, at last, being directed to addressing the problems associated with this neglected and abused resource.

In this presentation, we will not deal with the many important specific issues which have already been recognized as significant. These include water quality, waterway safety and use, erosion and instability, and wildlife and heritage conservation, to name a few of the major ones. Each is a major topic. Our organization has specific matters to raise and programmes to recommend with regard to each of these issues, and we will be making our concerns known at the appropriate time.

However, we also have some very grave concerns about the scope of the issues being considered at the municipal and provincial government levels, and about the process being followed. We are concerned for three reasons.

1. Some very important issues are not being addressed at all.
2. The dialogue on the rivers seems to be occurring in isolation from other significant related issues, as though the problems were merely a minor housekeeping matter.
3. We think that a remarkable opportunity for the city is about to be missed unless a new, broader and bolder approach is taken to looking at our rivers.

We would like to focus on some of these subjects, which so far have not been discussed.

1. AN INTEGRATED APPROACH TO RIVERS MANAGEMENT: THE RESOURCE CONCEPT

Recommendation

Build the programme for the management of the rivers with an integrated approach to the rivers based on the Resource Concept. While specific responsibilities may be delegated to various areas of government, there must be a mechanism for ensuring that there is effective co-ordination, and that no aspect of rivers management is being ignored due to a lack of designated responsibility.

The 1985 *Consultants' Report to the Ad Hoc Committee* of the Rivers and Streams Authority recommended that any discussion of how to manage Winnipeg's rivers must start by treating those rivers as resources. The following definitions were provided:

A **resource** is "all of the primary and natural elements--land, water, air, wildlife, fish, vegetation, cultural and historic sites--and all of the uses which man [*sic*] can make of these elements, both now and in the future."

Resource management is "the broad and detailed balancing, in a specific geographic area, of all human uses of the resources with the natural processes and capabilities inherent in those resources to sustain existing and future uses."

These are not new concepts. They are widely accepted as the basis for environmental management in many jurisdictions. The government of Manitoba has implicitly endorsed these concepts within the eight *Guiding Principles for Environmental Management* which now govern government policy, programmes and legislation.

We strongly support this **Resource Concept** as the basis for developing a management strategy for Winnipeg's rivers. Unfortunately, this concept seems to be absent from any government papers or comments on river management issued subsequent to the *1985 Consultants' Report.*

Instead, we have observed a series of piecemeal actions and pronouncements. Some of the actions have been taken as worthy short-term solutions to urgent problems, specifically in the area of policing and related boater safety. Another, the amendment to the Local Improvement provision of the City of Winnipeg Act to include riverbank stabilization, was a well-intentioned, but rather hasty--and probably unworkable--attempt to help river property owners in their own riverbank protection efforts.

The province's *10-Point Action* plan also contained a number of laudable statements and worthy objectives. But, like most of the other city and provincial documents, it leaves the impression that a little patching and streamlining is all that is required to make everything all right. The recommendations for amendments to the City of Winnipeg Act with respect to the rivers are also generally positive, but represent a completely fragmented approach.

It is true that one has to begin somewhere. But making a weak beginning in the wrong place can make it very difficult to get things right in the end.

Our position is that, unless an integrated approach is taken to waterways management in Winnipeg at the outset as we start to plan a future for our rivers, we will continue to have recurring problems and complaints from all quarters. And we will certainly never be able to transform this unique asset into the extraordinary jewel which it has the potential to become.

The 1985 *Consultants' Report* contained an extensive discussion of the Resource Concept in relation to the rivers. We respectfully recommend that this be reviewed again. We understand that there was considerable criticism of the type of management agency structure recommended by the report--a

criticism we share. But this does not undermine the value of the thorough exploration of the Resource Concept in the first part of the report.

2. A WINNIPEG RIVERS DEVELOPMENT CORPORATION

Recommendation

A corporation with the mandate to develop public lands, conserve natural and heritage areas, and provide interpretive experiences for the public, must be established concurrently with, and not before, the other elements of the total rivers management structure. (See Recommendation 5).

Various forms of a Winnipeg waterways agency or corporation have been proposed over the years. This is not the place to debate the pros and cons of the different models. Although this is a most important topic, extensive discussion should take place with public consultation at the appropriate time.

The point we want to make here is that virtually all the concepts proposed so far have a major shortcoming, due mainly to the absence of the Resource Concept outlined above. The primary objectives of most of the proposals, including the most recent one described in the February 1987 *Discussion Paper on Proposals for Changes to the City of Winnipeg Act,* are: development of public lands; public education through interpretative programmes; and conservation of natural heritage and scenic resources.

We support the concept of an organization incorporated to achieve these objectives. If properly funded and driven by bold visions, its activities would add immeasurably to enjoyment of the rivers by Winnipeggers and tourists. If its mandate included public programming, and liaison with the private sector and with private landowners through co-operative ventures and fund-raising, we could count on the evolution of a spectacular riverscape, made more colourful through the abundance of festivals, special events, and ongoing public programmes. Public awareness and appreciation of the rivers could be further heightened through awards programmes recognizing various categories of contribution to the tapestry of the rivers--architecture, recreation, retail, events, and so on.

But the existence of such an organization, however wonderful, would in no way help to resolve most of the problems associated with the rivers. We believe that this organization would soon find itself facing many of the same frustrations experienced by today's river property owners and river users--bank erosion and instability, pollution, use conflicts. To the extent that its activities would be site-specific, it would simply become another organization like Core Area Initiative, the Forks Renewal Board, Forks National Parks, and ARC, which are not required to co-ordinate their activities or account for their actions to a central rivers body.

Our position is that a rivers development agency with a mandate limited to development of public lands, conservation of wildlife and heritage areas, and education of the public through interpretive

experiences, is a worthy concept, and an important component of a total rivers management structure. But it does nothing to provide a permanent solution to the real problems of the rivers, and it falls short of developing the potential of the rivers to the fullest. It should be introduced only as one part of an integrated solution to the problems and opportunities of Winnipeg's river environment.

3. RESEARCH INTO RIVER DYNAMICS

Recommendation

There must be a plan for embarking on and maintaining a long-term research programme into the dynamics of the rivers, with the findings used as the basis for developing a bank protection strategy for public and private lands to protect the river resource for future generations.

Bank erosion and instability are a reality of the rivers. It may be that the present situation is unchangeable. But it may also be, as many experts have suggested, that the situation may be dramatically aggravated by specific factors, such as the artificially maintained levels, and possibly the method of draw-down in the fall, to name only two possibilities. We are prepared to share with your committee the large body of engineering, research and survey data we have collected over the years, which seem to support the view that bank deterioration has accelerated dramatically in recent decades. At this point, the specialists cannot agree on the causes and patterns of riverbank destruction because they do not have all the facts. The reason is that no comprehensive, ongoing research has been done, except for site-specific studies on a one-time basis.

It is hard to imagine why there has not been more demand for research into the dynamics of Winnipeg's rivers. The stakes seem high enough, given the number of bank failures associated with major public projects, not to mention private landowners' property losses.

There needs to be comprehensive research to establish some acceptable benchmarks to allow for ongoing monitoring of land loss and bank deterioration, and to determine the patterns and causes of bank destruction. This type of research was recommended in the 1985 *Consultants' Report*, specifically a riverbank stability study, an erosion vulnerability study and a hydrology and flooding study, including provision for ongoing monitoring.

Major studies are expensive, but there is no reason why Winnipeg should be unable to obtain federal funds for this purpose, as other jurisdictions seem to be able to do. Unfortunately, without a river organization in place, there is no-one with the responsibility to pursue this objective.

Our position is that there must be a plan for embarking on a research programme. If the rivers are to be managed effectively, then we must come to understand their dynamics: what forces are working to undermine the banks and the riverbed, and whether deterioration can be minimized. Out of this study,

a suitable bank protection strategy can be developed for public and for private lands, with the objective of protecting our resource for future generations.

This strategy will require us to come to terms with what kind of banks we want for our rivers--vertical and crumbling, sloped and landscaped, or edged with rip-rap or other hard material. It may also dictate some changes in the way river levels are managed, including the actual level maintained. If the locks at St. Andrews prove to be the major contributor to bank destruction, as many experts believe, then their operation may have to be reviewed.

4. A BOLD VISION FOR OUR RIVERS: A BIG IDEA

Recommendation

We should take advantage of the opportunity we have to turn our rivers into an asset that will give Winnipeg international acclaim. We can do this only if we launch the new era for the rivers with a great vision of what they can be, a vision which the community helps to shape.

The rivers of Winnipeg present the city with an extraordinary opportunity. There is certainly much to repair, but, unlike older cities where the river played a central role for generations, there is not much to undo.

With the right kind of plan, the rivers could be Winnipeg's passport to greatness as a first-class tourist destination, summer and winter. With retail, housing, dining, sport and recreation facilities at river-edge, with exciting public programming in the form of sporting events, art displays, festivals, boat shows, with the banks protected from deterioration, our rivers could make Winnipeg as much talked-about as other water-based cities. Perhaps the rivers could even play a part in the city's economic development strategy.

If all we do is focus on the most annoying problems and how to fix them quickly, this great opportunity will be missed.

Rather than starting with some piecemeal legislation and regulation, let us start with some "blue sky-ing" by Winnipeggers on what they would like their rivers to be, in every respect: how they should look, how they should be used, how pure should the water be, what would they like to do on and in the rivers, and so on.

Show Winnipeggers how other cities have used their waterways to dazzle their residents and their visitors. Brain-storming sessions could be held with opinion-leaders, and community and user representatives. The children who would benefit from any great plan could participate through school-based essay and picture contests, with displays on Canada Day. People would start to get excited about the possibilities, and the nucleus of a great dream and community energy would be created.

There is already some energy and enthusiasm at the community level for the rivers. The Manitoba Naturalists' Society and Riverborne are only two groups that have taken an initiative to raise awareness and increase enjoyment of the rivers. People want to be part of great things. They have a lot of creativity and imagination. The best solutions are not usually those handed out by government. The best ones are those where government has played the role of midwife, facilitating the birth and realization of a community dream.

Awareness of our rivers as a heritage is growing, but still largely subliminal. Canada has a Heritage Rivers System, but few people know about it. There have been two Rivers Conferences in Canada. Even Alan Fotheringham has written about Canada's rivers in Maclean's.

It has been four years since the Rivers Conference organized by the Institute of Urban Studies in Winnipeg, and two years since the Rivers Conference in Ottawa, attended by at least 19 Winnipeg government officials, consultants and citizens. This conference is well timed.

By looking beyond our own borders, we can make sure we are not missing any good opportunities. Other cities have achieved spectacular things with their waterfronts. We can learn from their experiences, explore them for ideas for our own city. Waterfront development is now an industry in its own right, supported by a large network of consulting professionals, informative publications and good communications systems. There is no reason for Winnipeg to stumble around in the dark as though no city has ever been through the process before.

The city has recently taken a step in this direction by bringing in two Commissioners from other cities. In the area of river management development and the process of community involvement, we can look for models in the National Capital Commission, the Rideau Canal and the Murray Valley in Australia to name only three out of the hundred or more that were represented at the Ottawa Rivers Conference in 1987.

Although what we decide to do in Winnipeg must be tailored to this city, and reflect our own heritage and wishes, the vision can only be enriched by looking beyond our limits at great things that have been achieved elsewhere.

Our position is that first there must be that vision, that statement of philosophy and principles, that great community dream, before great things can be done. The Floodway and Assiniboine Park would not have happened without a vision. Now, we need a vision for the rivers as a whole.

5. THE RIVERS MANAGEMENT AGENCY

Recommendation

There must be a rivers management agency with the responsibility for integrated management of all aspects of the rivers and their uses.

The final major idea, which we consider basic to sound management of Winnipeg's rivers and which has not been put on the table for consideration, is that of a true rivers management agency with the responsibility for integrated management of the rivers.

Our position is that there needs to be a permanent organization, with the appropriate legislative framework, staff and funding, to be responsible for the following:

- **Water quality and other environmental considerations**

  Establish objectives; carry out monitoring; interface with appropriate government levels on regulations and enforcement.

- **Development principles**

  Establish development objectives and guidelines, following provincial environmental management principles, and including specific principles to guide development; for example:

  Rivers and banks within riverside parks should be integrated into the parks, ensuring protection, access and recreational use;

  Set aside conservation areas;

  Preserve and encourage rivers' mixed use--residential, commercial, industrial, recreational;

  Acknowledge and define role and expectations of private landowners in strategy for river development and protection;

  Improve quality of environment (water);

  Meet recreational/leisure needs;

  Co-ordinate river use by groups;

  All development should have a people-oriented component.

- **Development planning and control**

  Develop master plan for all waterways, including banks, surfaces and riverbeds, with appropriate public consultation.

  Define guidelines for development, including aesthetic design, bank protection and stabilization, heritage area preservation and wildlife habitat preservation.

Control all development on and use of waterways in relation to the plan, including proposals from other agencies including Core, Forks, etc.

- **Waterway use, safety and regulation**

  Develop waterway use zones and safety standards.

  Ensure development and enforcement of appropriate regulations.

- **Riverbank erosion and bank instability**

  Develop the data base to define exact process of deterioration.

  Carry out regular quantitative monitoring of deterioration.

  Prepare recommendations for appropriate remedy on local or global basis.

  Initiate bank repair and stabilization programmes.

- **Research**

  Conduct all necessary studies for proper management of the river resource.

- **Information resource**

  Be the central source of information for all aspects of the rivers and riverbanks, including river-related archives.

  Provide a regular reporting function on the state of the rivers--bank stability, water quality, pollution, etc.

CONCLUSION

Our organization feels that a rivers management agency with the scope outlined in the final recommendation is fundamental to ensuring a healthy and vibrant future for our rivers. We also believe that a recognition of the other ideas we have expressed here by your Committee and other levels of government will result in the creation of something for all Winnipeggers to enjoy and be proud of for generations to come.

USES OF WINNIPEG'S RIVER CORRIDORS

Wesley Paetkau
Rick Penner
Urban Workshop Course
University of Winnipeg

The presentation on which this paper is based was prepared by the eight students enroled in the Urban Workshop course offered by the University of Winnipeg. The purpose of the Urban Workshop is to introduce students to the multi-sectoral nature of urban issues. To this end, the course is now focusing on the many uses of Winnipeg's waterways. This exercise is intended to determine the impact of the various uses on each other.

A list of eight uses of the rivers was composed (see Figure 1). The uses included in the study were:

1. agriculture;
2. industry;
3. waste disposal;
4. residential and commercial;
5. navigation, tourism and heritage conservation;
6. water-based recreation;
7. open spaces; and
8. infrastructure.

Each student selected one of the uses, and undertook research in that area.

The research method used was *environmental scanning*. This involved information gathering through data collection and interviews with professional and community-based interest groups directly related to each relevant topic.

Upon completion of the research, students constructed a matrix using numerical values ranging from one to five. The greater the numerical value, the greater the impact that one use has upon another. In rating the various impacts, both the positive and negative aspects of the relationships were incorporated (see Figure 2).

Although we have chosen to elaborate upon the more important effects and limitations that one use may have upon the uses collectively, we do not wish to understate the importance of a use that substantially affects another specific use only as it is observed on the matrix. For this reason, a short explanation shall be given in cases where this occurs.

First, because *agriculture* is a major part of the provincial economy, it uses considerable amounts of land within the drainage basins of the rivers. Furthermore, the herbicides and pesticides that farmers use can be found in the river water, and, given the high levels of toxicity of these substances, they pose a dangerous hazard to the ecosystem. In addition, agriculture's extensive use of fertilizers also finds its

FIGURE 1

The Eight Related Uses

1. Agriculture
2. Industry
3. Waste Disposal (Sewage, Storm Water, Snow)
4. Residential and Commercial
5. Navigation, Tourism and Heritage Conservation
6. Water-Based Recreation (Boating, Swimming, Fishing)
7. Open Spaces (Parks, Natural Areas)
8. Infrastructure (Roads, Railways, Utilities)

way into the rivers. This results in an increased nutrient level in the waterways, which exacerbates the problem of nitrification. Moreover, modern farming practices like overworking the land cause severe soil erosion problems. This eroded soil often ends up in the rivers, causing problems associated with the high siltation level.

Secondly, when dealing with the *industrial* aspect, it should be noted that Winnipeg is not primarily an industrial centre with the Red and Assiniboine Rivers as its lifeline. Industry has evolved from being dependent upon the rivers to being independent of them. At the outset of Winnipeg's development in the nineteenth century, the fur trade utilized the canoe because the only alternative form of land transportation at that time was the slow moving Red River ox cart. When this inefficient form of land travel was coupled with the vast, fan-like land development of Winnipeg, the economic advantages of water travel were made even more appealing, despite disadvantages like lengthy portages and fluctuating water levels. With the increasing development of land transportation through the railways and the automobile, industry turned its back on the rivers in the interest of economic practicality. Efficient land transport eventually allowed for more industrial development inland, since these modes were more variable. After all, it is easier to build a highway or railroad than it is to divert a river over long distances.

Industry, however, does have a negative impact on river quality due to effluent disposal, and on the natural beauty of the rivers and the landscape, although some might discount the adverse aesthetic impact of industry as an unimportant consideration. Industry's impact is mostly seen in the older parts of Winnipeg, where the underground sewer system is combined. This means that the wastes that result from residential, industrial and storm water run-off are all present in one sewer line. During times of heavy rainfall, the storm run-off overflows into the river, which means that waste discharges are bound to follow. This happens about thirty times a year. It has been estimated that 70 million gallons of wastes are discharged into the rivers each day. Unfortunately, this statistic does not take into account the increasing amount of illegal dumping that goes on behind the scenes, with substances like oil and gas. Although the degree of blame upon industry cannot be precise, since these discharges are disposed of collectively, industry should not be held blameless. The *infrastructure* should bear some of the criticism. The combined sewer system does not enhance the waste disposal process. Instead, it detracts from it, with the storm water overflows and its further overuse through the various socio-economic sources of the discharges.

These factors have negative ramifications on the rivers' aesthetic appearance, ecological balance and economic viability, by inhibiting private and public uses of the waterways.

FIGURE 2

	Agri.	Ind.	Waste	Res. & Com.	Heritage Navig. & Tourism	Rec.	Open Spaces	Infra.	
Agri.	X			3					4
Ind.		X	3		3				6
Waste	3		X	4	4	5	3	4	23
Res. & Com.	(3)		4	X	4	4	4	5	24
Heritage, Navig. & Tourism				5	X	4	3	3	15
Rec.				5	3	X			8
Open Spaces				4	4	3	X	3	14
Infra.			4	3				X	7

The infrastructural effects on effluent disposal can be taken a step further. For instance, if road and bridge construction escalate to accommodate sprawling residential developments, so will the necessity for snow clearing and street sweeping services. Furthermore, increased road construction will also mean an increase in utilities and underground pipelines, of which the sewer system is an integral component. Both of these would entail a substantial increase in municipal costs.

Perhaps environmental considerations should also be mentioned at this point. Recently, the river water level was lowered by the locks just north of Winnipeg in order to compensate for the spring thaw and resulting ice-flow. Although this is essential to prevent extensive flooding, the presently lowered water level causes riverbank slumping and has a negative impact on private and public properties in this area. In addition, roads, paths and bridges not only provide vital transportation, but they also provide access to the aesthetic attributes of the rivers. It must be stressed, however, that the actual characteristics of the roads and bridges have to be taken into account if access is to be facilitated. If, for example, a multi-lane highway followed the contours of the riverbank, its physical presence would affect the natural beauty of the river landscape (see Figure 3). Also, the extensive traffic that would accompany the development of this highway would inhibit access and enjoyment of the river. On the other hand, if the proposed road were designated for slower moving traffic and it integrated the use of greenery in the construction, then the natural flow would be salvaged to some extent, and access to the river would still be possible. The same principle could apply to bridge construction (see Figure 4). For instance, if the supporting structure for an overpass extended past the riverbank, this would not only kill off natural vegetation where the concrete supports were situated, but it would also restrict footpath movement under the bridge. A pedestrian would essentially have to drown to get past the supporting structure if such a form were adopted. However, if a different building technique were used, in which the supporting structure did not reach out as far, the natural greenery could flourish and public access under the bridge would also be possible. In both "revised" examples, the infrastructural process is functional, and compatible with aesthetic and social concerns. Unfortunately, such functionalism and compatibility are not the rule in Winnipeg, since certain infrastructures are incompatible with other uses mentioned above.

Finally, recreational activities affect *residential* and *commercial* interests. The engine noise and boisterous atmosphere that emanate from speed boats and more luxurious vessels in the late evening are not only annoying to the residents along the rivers, but the resulting wake from the motor boats causes severe erosional damage to riverfront property.

Figures 5-8 on the following pages illustrate the impacts of the various uses of the riverbanks on one another.

FIGURE 3

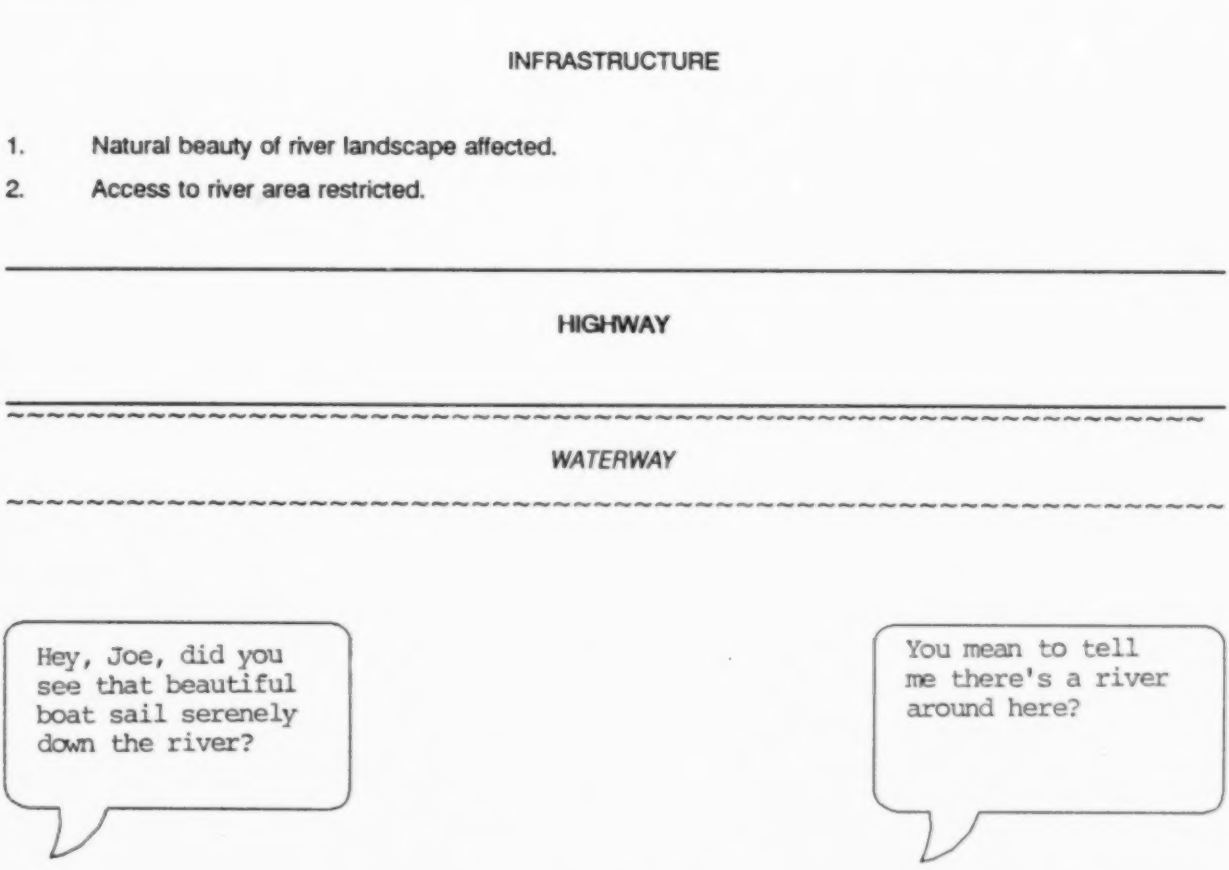
INFRASTRUCTURE
1. Natural beauty of river landscape affected.
2. Access to river area restricted.
HIGHWAY
WATERWAY
Hey, Joe, did you see that beautiful boat sail serenely down the river?
You mean to tell me there's a river around here?

FIGURE 4

INFRASTRUCTURE

1. Natural Vegetation Under Bridge Killed Off
2. Supporting Structure Restricts Under Bridge Movement

"BRIDGE OVER TROUBLED WATERS"

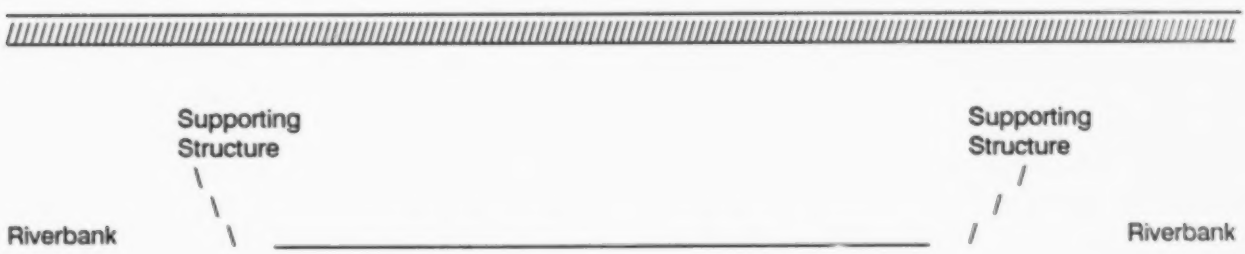

FIGURE 5

WASTE DISPOSAL
(Including sewage, storm water, snow, street sweeping)

What use it affects	How it affects the use
Agriculture	■ Contamination of water
Residential and commercial	■ Detracts from river front living ■ Limits drinking water sources ■ Limits commercial establishments ■ Damages commercial fishing industry in Lake Winnipeg ■ Deposits high lead levels
Heritage conservation, navigation and tourism	■ Negative effect on tourism industry ■ Limits incentives to preserve historic sites along river
Recreation	■ Limits recreational opportunities due to health risks
Open Spaces	■ Aesthetically unpleasant ■ Reduces biological diversity
Infrastructure	■ Places demands on infrastructure

FIGURE 6

RESIDENTIAL AND COMMERCIAL USE

Which use it affects	How it affects the use
Agriculture	■ Urban expansion
Waste disposal	■ Contributes to effluent load
Recreation	■ Private land--limited public access ■ Conflicts with water users ■ Expands opportunities for property owners
Open spaces	■ Competition for riverbank land ■ Aesthetic effects ■ Design features can enhance or detract
Heritage conservation, navigation and tourism	■ Commercial and heritage development can be complementary ■ Land competition
Infrastructure	■ Increased demand for infrastructure

FIGURE 7

OPEN SPACES

What use it affects	How it affects the use
Residential and commercial	■ Enhances communities' beauty ■ Conflicts between property owners and park users ■ Land competition
Heritage conservation, navigation and tourism	■ Contributes docking space ■ Enhanced aesthetic appeal of the city for tourism ■ Winnipeg heritage is one of open space
Recreation	■ Aesthetic improvements ■ Contributes docking space
Infrastructure	■ Limits space

FIGURE 8

HERITAGE CONSERVATION,
NAVIGATION AND TOURISM

What use it affects	How it affects the use
Residential and commercial	■ Noise problems ■ Wave erosion problems ■ Land competition ■ Tourism and commercial development can be compatible
Recreational	■ Recreation and tourism can be compatible
Open spaces	■ Docking facilities ■ Tourist attractions ■ Aesthetic improvements ■ Heritage sites are often combined with open spaces
Infrastructure	■ Bridge design ■ Limits development in some areas ■ Also requires additional development in others

LAND THAT IS NOT OWNED:
TOWARDS A WINNIPEG COMMONS

Ross Dobson
Greening the Forks

What ought to provide the foundation for all of this weekend's discussions is the question "Who owns the river?" Not the water, not the river-bottom, not the river surface, not the river bank, but the river itself. *Who owns the river?*

The Wind in the Willows, by Kenneth Graeme, was one of my favourite stories when I was about ten. In it, Mole, awakening from his winter hibernation, meets the Water Rat beside the river.

> "So--this--is--a--river!"
> "*The* River," corrected the Rat.
> "And you really live by the river? What a jolly life!"
> "By it and with it an on it and in it," said the Rat. "It's brother and sister to me, and aunts, and company, and food and drink, and (naturally) washing. It's my world, and I don't want any other. What it hasn't got is not worth having, and what it doesn't know is not worth knowing . . ."
> "But isn't it a bit dull at times?" the Mole ventured to ask. "Just you and the river, and no one else to pass a word with?"
> "No one else to--well, I mustn't be hard on you," said the rat with forbearance. "You're new to it, and of course you don't know. The bank is so crowded nowadays that many people are moving away altogether. On no, it isn't what it used to be, at all. Otters, kingfishers, dab-chicks, moorhens, all of them about all day long . . ."
> "What lies over *there*?" asked the Mole, waving a paw towards a background of woodland that darkly framed the water-meadows on one side of the river.
> "That? O, that's just the Wild Wood," said the Rat shortly. "We don't go there very much, we river-bankers."
> "Aren't they--aren't they very *nice* people in there?" said the Mole a trifle nervously.
> "W-e-ll," replied the Rat, "let me see. The squirrels are all right. And the rabbits--some of 'em, but rabbits are a mixed lot. And then . . . of course,--there--are others," explained the Rat in a hesitating sort of way . . . "Weasels--and stoats--and foxes--and so on. They're all right in a way--I'm very good friends with them--pass the time of day when we meet, and all that--but they break out sometimes, there's no denying it, and then--well, you can't really trust them, and that's the fact."

When I was ten, I though Ratty was just wonderful. Forty-five years later I realize that I am one of the dab-chicks--or maybe one of the weasels--that Ratty complains of. *The Wind in the Willows* was written just after the turn of the century, but you'll hear Ratty's complaint about "those others" raised whenever the issue of riverbank ownership, or of greater riverbank access, is raised. The question of *trust*--or the *lack* of trust--is still very much alive. Now it's called "the security problem" or "the problem of vandalism," but it is always the question of whether or not you can quite *trust* those *others* to behave properly, or to do the right thing. The issue of crime, vandalism, public mischief and order, which is part of that trust question, is properly, however, a separate problem from that of *land ownership*. It is not appropriate to deal with it by land use regulation; that only sends the problem somewhere else. It is a problem that ought to be dealt with by other means. The larger issue of trust, however, is deeply involved

in the question of management: who do we trust to *manage* the property, the rights, the river, the riverbank, and so forth?

Nobody argues that people should not be on the river itself. The river is the last remnant of our *commons*, and we still, quite un-selfconsciously, think of it in those terms. We quite properly are considering regulating the use of the river: the volume of use and traffic makes that necessary, and much of our current discussion is centred on deciding how, and by what authority, we can best do that. But we are not talking about *ownership* of the river: *no one owns the river*, which means that *we all have property rights in the river*. But we are not all "riverbankers," are we? Most of us don't have the price of admission to that rather exclusive association. Most of us are dab-chicks or weasels, moorhens, kingfishers, otters, and a hundred other varieties of creature that Ratty never dreamed of. But we all have, not just collective property rights, but individual property rights in the river. It is a *commons*. We can travel freely on it, take water and fish and game from it, as we choose, as a *common property right*. That is, when we can get close to it, we can.

Just a few hundred years ago in my tribal history (which happens to be British) my people had common property rights to areas of land as well as to the rivers and the oceans; to vast tracts of field, forest and meadow (as well as riverbank), which we could use, in common, for planting, hunting, for grazing livestock, for gathering firewood, building supplies, and medicines. Nobody "owned" it; we all did. But then our common land was enclosed. It was alienated from us, and our common property rights in it were denied. The end of that process was what brought the Selkirk settlers to the Red River colony and then they did the same thing to the Natives here. The process of establishing private property here was (and still is) legally described as *alienating* the rights of Natives from their common property; "ownership" was introduced, and ownership means you can keep the "others" away, the dab-chicks and the weasels, and enjoy your ownership in private, and for your private purposes. As a commons, now, we have only the river, plus about a yard of pathway along the riverbank in which we--each of us and all of us--still have a traditional, common law right of way, even if the property is nominally "owned."

We have to keep exercising those common law rights to the riverbank, or we lose them. Some of us do that, with intent, using the paths in order to maintain the right to do so. There is also a ghost population of Natives drifting back and forth, more or less unseen, up and down our riverbanks, doing us all that public service. Where they do *not* walk--for example, around Armstrong's Point (the riverbank path cuts short across the neck of that loop of the river)--the fences go right to the water. Ratty would put his fence right to the water, if he had one. Ratty's kind would have all of us stay away from his riverbank, either keeping us to the wild wood or permitting us only controlled riverbank access in limited riverbank areas (doesn't that have a familiar ring to it?) which we call parks; which are, quite definitely,

owned--publicly owned, but owned nevertheless. But (and this is my main point) our common property rights can be lost to public ownership just as surely as they can be lost to private ownership. (Our society makes a great deal of ownership, but damned little of common rights. After all, what if someone begins to "break out?").

We are not here at this conference talking about ownership of the river. Why, then, are we talking about the riverbanks in the context of ownership? The river corridors issue that this conference is discussing should *not* be (as I am sure it is to most of you) the issue of who should own those corridors, and therefore, for that reason of ownership, have the authority to manage them, to make decisions about them; the issue, say, of public ownership versus private ownership. The question really ought to be the issue of ownership itself: of enclosure, of alienation, versus common property rights, which is also the issue of our public right to be the makers of decisions, the unmediated and inalienable managers of our public places and amenities.

Go to any of our parks and you will see signs that say "private property." We dab-chicks and weasels can be kept out of those public places, especially if we show signs of "breaking out" in some way. Those public places can be sold by their owner (the city or the province or the federal government) and they have been and they will be. They can vanish under roads and bridges or other kinds of development, public and private, with only minimal (or, more often, no) reference to the public will concerning them, and what public participation there is, is severely constrained, managed and controlled. Go to The Forks, which is owned by a corporation whose principals are our three levels of government, and you will see signs that say "private property" on property that you nominally own and which twenty million of your tax dollars have been spent to clear and prepare for development. Just as at Portage Place on North Portage (where even more millions of your tax dollars prepared the way for private development and private rights), you will see private security guards to enforce those private property rights, and if you look very unusual or just want to hang out--if you can be classed on the spot as a dab-chick or a weasel--if you are not spending money--those private rights will be enforced against you.

The Chair of the Forks Renewal Corporation has said publicly that the Forks Corporation is a private corporation. I submit to you that he is correct. The true purpose of the Forks Renewal Corporation--once you see past all the propaganda (which is also being paid for by your tax money)--is to deliver public property, cheaply, into the hands of private developers. The purpose is not any sort of development that is needed by Winnipeg; nor is it any sort of development dictated by the unique and valuable historical and cultural meaning of the site itself (one of only two designated urban cultural and historic sites in Canada, Citadel Hill in Halifax being the other). Rather, the aim is the sort of development that is needed to enhance the value of the CNR real estate next door, especially the extension of York

and St. Mary to connect with Provencher and an extension of Bannatyne and McDermott to create a new major Winnipeg intersection centred on the CNR property and replacing Portage and Main.

I am well aware that the purpose of this conference is to discuss the formation of a Winnipeg Rivers *Corporation* on the same model. Given the existing context in which we are experiencing that model, that purpose sounds to me extremely dangerous: it sounds like another public land grab, just like The Forks, and there is enough careful wording in the proposition being made by the provincial government, about "varied uses" and "mixed purposes" and "innovative development" to justify the suspicion, to my mind, that what is being proposed as a riverbank preservation, management and development authority may well not be in the public interest, but in the interests of a whole list of private entities. "Public-Private Development Co-operation" in the development world vocabulary today usually means public land, prepared and serviced by public funds, being turned over for next to nothing to private development, alienated from unfettered free access and "common" use into the profit domain of private ownership, with any public use constrained to that domain of profit or foregone, with public interest and historical/cultural preservation alike tortured into a commercial commodity to justify exploitation and speculation.

I submit that it has been demonstrated on North Portage and at The Forks that the corporate model, the model of private ownership, is the wrong model for public property. It is inadequate for securing our public common rights in North Portage; it is inadequate for the protection of our public common rights in our land at The Forks; it is inadequate to achieve the imaginative and unique kind of cultural and historic development that is possible at The Forks; and it is also inadequate and inappropriate for the management and development of our Winnipeg rivers and streams and the lands that border them. Indeed, I believe that it is a *present threat and danger* to our public common property rights in the riverbank corridors. What we need is to extend the commons that our rivers and streams themselves represent, to extend those common property rights back onto the land that borders those rivers and streams, not further alienate and limit those commons.

I propose that we trash the corporate model for holding and managing our riverbank corridors and re-create--re-store--the commons to all of us dab-chicks and weasels. Starting with the riverbanks and stream banks in Winnipeg, we ought to create--re-create and re-store--a Winnipeg commons: *land that is not owned.* Managed, yes; developed, yes, and that by us, directly and unmediated; but not owned and therefore not saleable, and not alienable from us. It is the alienation that ownership represents that is the problem. However, our society is so in love with ownership that the zero point of ownership is still a kind of ownership, by the Crown. If we can do no better, let us return our river corridors to the status of Crown Land, although even that has its problems: our forests, for example, are Crown Lands, but they

are still effectively alienated from most of us by the letting of timber management and cutting concessions that are so broadly defined as to constitute a back-door ownership. That sort of thing must be guarded against, so perhaps Crown Land status is not appropriate. It might perhaps be necessary, even simplest, to create a new category of land, protected by the appropriate caveats and prohibitions and encompassing the concept of property rights and responsibilities for all citizens, both collectively and severally, protected both from individual and government ownership, and managed by us directly.

Direct, unmediated management of a Winnipeg commons, however it is constituted, could be done through a Citizens' Commons Commission, a large body of citizens chosen at random, by standard statistical methods, from the voters' list, like a jury. And here we are, back at the issue of trust, as I hear you saying to yourselves, "How could any such random group of amateurs be *trusted* to make the right decisions, or not to be coerced in their naiveté by keen operators, or, heaven forbid, what if it became political? What if they *broke out*?" Well, if that method of reaching decisions was good enough for life and death, it's good enough to manage common property rights. And if a few hundred people can statistically represent with a high degree of accuracy the opinions of a larger universe of people, then actually getting such a group together, functioning under a few simple rules, would, I am sure, result in management that could be trusted to reflect the wishes of the citizens of Winnipeg. In fact such a system has been used in Vancouver quite successfully, managing through a direct democratic process, with the professionals and the politicians taking notes and receiving instruction. If the Citizens' Commission were as large as a thousand people--and efficient deliberation and decision making by such a group is eminently possible, especially with modern methods of communication and information processing--quality decisions, accurately representative of Winnipeg, would be quite certain.

This question of a new commons is much broader right now than mere riverbank corridors. The United Nations World Commission on Environment and Development, called the Brundtland Commission, says, in the opening of Chapter Ten of its report *Our Common Future*:

> The traditional forms of national sovereignty are increasingly challenged by the realities of ecological and economic interdependence. Nowhere is this more true than in shared ecosystems and in "the global commons"--those parts of the planet that fall outside national jurisdictions. Here, sustainable development can be secured only through international co-operation and agreed regimes for surveillance, development, and management in the common interest. But at stake is not just the sustainable development of shared ecosystems and the commons, but of all nations whose development depends to a greater or lesser extent on their rational management.

"Global commons" in that paragraph means those commons of Antarctica, outer space, the seas and oceans, and the air that we all, in common, breathe, and the Commission notes that their management is "at different stages of evolution," which may be a euphemism for "in flux," which is usually

a euphemism for "in a mess and out of control." Nevertheless, if we substitute "citizens" for "nations" in that paragraph, "ownership" for "national sovereignty," "social" for "ecological and economic," and recognize our national waters, as well as our global air, as "commons" (which they are--remember, nobody owns the river), then we have an acceptable model upon which to build something new. In the name of sustainability, the control of single-purpose development, and social equality, we can surely challenge--this far and in this limited context--our "traditional" forms and concepts of "land ownership" (which is really not traditional, but a novelty only a few hundred years old and here, in this land, barely more than a century old) and revive, alongside the commons of air and water, the more ancient, more reasonable, more co-operative, more responsible, more sustainable, and more ecologically sensible style of land possession, the commons.

Perhaps identifying and declaring such "commons" of land, air and water might prove a more effective route to the pollution control and "sustainability" which seems to escape us under the ownership model, and be used to protect our common rights in general, as well as our common property rights in certain public lands. I would propose a Bill in the Legislature--a Common Properties Protection Act--to protect and preserve from all intrusion the rights we all have, in common, to clean and unencumbered air, water and land, as well as our civic rights to enjoy them unfettered and uncluttered, and our civic right to manage them directly ourselves.

Our river and stream corridors deserve no less than such a new and distinct designation: they are our foremost common treasure which we all deserve to possess equally and have equal access to, and that includes significant depth of river and *stream* bank as well, universally, along their courses. And I would specifically include the property we own at The Forks in that designation, disbanding the Forks Renewal Corporation and its unacceptable mandate. The Forks, and all of our streams and rivers and their banks, deserve no less and we--riverbankers, dab-chicks, weasels, and all the rest alike--the total citizenry of this jurisdiction, certainly deserve no less than direct and unfettered, unhindered access to and the direct use, control, and management of those rivers, streams and adjacent bank corridors; and deserve those rights of access, use and management unmediated by unnecessary layers of untrusting authority, bureaucracy or control. Above all, we deserve them free of any kind of private or public ownership.

CANADIAN RESPONSES TO RIVERBANKS: THE SPECIAL AGENCY APPROACH (SASKATOON'S MEEWASIN VALLEY AUTHORITY)

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A TRADITION OF PUBLIC OWNERSHIP OF RIVERBANK LAND

Ever since its founding as an urban settlement, a fundamental principle followed by Saskatoon's planners has been to ensure that the banks of the South Saskatchewan River, located within the boundaries of the municipality, are retained to the largest extent possible as open space and are accessible to the public. This principle was implemented in the community's first plan and survey in 1883, and has been continued with very few exceptions (which occurred during Saskatoon's earliest days). In fact, since 1912, no length of river frontage has been subdivided for other than open space purposes.

Today, the City's Municipal Development Plan recognizes the need to protect and preserve "the natural, historical and recreational features of the riverbank area of the South Saskatchewan River." As far as possible, the Riverbank areas are to be dedicated to municipal or environmental reserves. They are to be "preserved as public open space for the benefit of all citizens." The emphasis should be placed on developing these areas on a continuous basis for visual amenities and public recreation, but in a manner which "enhances and complements the natural and historical features of the Riverbank."

Of those portions of the Riverbank within the community which were subdivided for private use, the City of Saskatoon has purchased most of these properties and has designated them for open space, either to be retained in their natural state or to be developed as formal or informal parkland. Today, privately-owned property on Saskatoon's Riverbank consists of 28 residential riverfront lots, which were subdivided in 1907 and were originally owned by the community's earliest settlers. Together, these lots represent less than 3.5 percent of the urban frontage onto the River.

There are also a few small parcels of industrial and agricultural land in private hands. The City has indicated that it is prepared to acquire these properties for public open space if the present owners make them available for sale. The City's most recent acquisition of Riverbank land involved a small parcel of property associated with the private condominium redevelopment of a decommissioned power-generating plant. In another case, involving a brewery, the property has been extended into the River by the use of fill material and an agreement has been reached to convert this extension into a public park. The brewery and the power plant have been the only examples of industrial development of Saskatoon's Riverbank and in both instances, the River's edge has been reclaimed for public use.

***I would like to acknowledge the City of Saskatoon's Planning and Land Departments and the Meewasin Valley Authority for their assistance in the preparation of this paper.

In addition to the acquisition programme within its geographical boundaries, the City of Saskatoon has also purchased Riverbank land within the adjacent Rural Municipality. Today, the City owns approximately four miles of River frontage beyond its boundaries (the farthest property being about nine miles away), as well as a 180 acre island in the South Saskatchewan River.

Saskatoon's Riverbank land acquisitions within the rural municipality have been largely informal. The majority of these parcels were acquired prior to the establishment of the Meewasin Valley Authority and were a consequence of the City's active land-banking policy. Most of these publicly-owned rural properties are in a natural state, are not extensively used by the public, and are not easily accessible. Today, these properties do not fall within the mandate of the City's land-banking policy because they are not intended to be sold as redeveloped land for private use.

The establishment of the Meewasin Valley Authority now provides a vehicle through which such property beyond Saskatoon's geographical limits can be held. The City has been able to facilitate the acquisition of property for preservation purposes by performing the role of "real estate agent" for the Authority and by providing interim financing. At the same time, the City continues to hold its previously-acquired parcels "in trust as a public asset" for use by future generations.

With this tradition of public ownership of Riverbank land, the establishment of a special agency to protect the natural resources of the South Saskatchewan River valley was a natural outcome. It was an extension of the role which the City of Saskatoon had been performing informally for almost a century. It reflected a concept which, at least among the urban residents of Saskatoon, had considerable support.

The same tradition applied to the other public bodies which were to join the City as partners in the Meewasin Valley Authority. The University of Saskatchewan is a major owner of Riverbank land within the City limits; historically, its development activities have been sensitive to preserving the natural heritage of the Riverbank. The Saskatchewan Government's ownership of the Riverbank has, to a large extent, arisen as a result of the depositing of fill material by others; the development by the City and the Authority of many of these extensions to the Riverbank into public park spaces has been supported by the Province.

Through the joint interests of the Provincial Government, the City of Saskatoon, and the University of Saskatchewan, the Meewasin Valley Authority was born. The momentum for its creation was a realization by these public bodies of their common interests and responsibilities in preserving the natural features of the South Saskatchewan River Valley through a co-operative, co-ordinated and comprehensive approach which transcends the limitations of their respective mandates.

ESTABLISHMENT OF THE MEEWASIN VALLEY AUTHORITY

In 1974, the City of Saskatoon's Environmental Advisory Committee recommended to City Council that a study should be undertaken of the Riverbank. The Committee expressed a concern over the long-term environmental impact that urban growth could have on the River and, therefore, it recommended that a plan should be developed for the entire River corridor which would address this concern.

In 1978, the 100 Year Conceptual Master Plan, covering 80 kilometres of land adjacent to the South Saskatchewan River in Saskatoon and into the Rural Municipality of Corman Park, was prepared by Raymond Moriyama Architects and Planners. The preparation of this Plan was supervised by steering committees consisting of representatives from the Province of Saskatchewan, the City of Saskatoon, the Rural Municipality of Corman Park, and the University of Saskatchewan. The Plan was based on a comprehensive analysis of the environmental resources in the River Valley and recommended a conservation strategy that included the relocation and enhancement of certain recreational activities and the control of future urban developments through the identification of a series of nodes.

In retrospect, a concerted effort should have been made to obtain the participation of the Federal Government in these planning discussions. While the initial attention focused on the banks of the River, it has become more evident with time that the River itself must not be ignored. Water quality, flow levels, and conflicting uses are issues, within Federal jurisdiction and subject to Federal legislation, that have gained considerable significance during the past ten years.

The Conceptual Master Plan resulted, in 1979, in the passage by the Saskatchewan Legislature of *The Meewasin Valley Authority Act*. The main feature of this Act was the creation of a river valley conservation agency.

Initially, this legislation faced a storm of protest over the Authority's powers over privately owned farmland in the rural areas. The legislation was drafted without sufficient consultation and discussion with those rural landowners who might be most directly affected. While the Meewasin Act followed the model established for Regina's Wascana Centre Authority, the latter was a conservation agency with jurisdiction largely over publicly-owned land, whereas the former involved the imposition of development regulations over large amounts of privately-owned land.

The protest resulted in the withdrawal of the Rural Municipality of Corman Park as a partner in the Authority, hence ending, for the present, the opportunity to address rural and urban conservation concerns under a single agency. The Act was also amended to remove privately-owned land within the Rural Municipality from the Authority's development review powers. Furthermore, an appeal procedure was established for those development review powers which were retained.

Today, the Meewasin Valley Authority is controlled by three partners--the Province of Saskatchewan, the City of Saskatoon, and the University of Saskatchewan. It is managed by a twelve-person Board of Directors (with four members appointed by each partner). Annual statutory funding, totalling $2.1 million in 1989, is provided by each partner (Province of Saskatchewan: 40.3%; City of Saskatoon: 30.3%; University of Saskatchewan: 29.3%). The establishment of by-laws and the review of development and subdivision proposals over specified properties continue to be within the Authority's mandate.

THE MEEWASIN VALLEY AUTHORITY'S LEGACY TO THE COMMUNITY

While the citizens of Saskatoon have always appreciated the beauty of the South Saskatchewan River and its role in providing a distinctive character to their community, this relationship was, for many years, taken for granted. The City continued to maintain and develop formal Riverbank parks. However for the most part, the urban landscape "turned its back" on the River.

There were very few vantage points from within Saskatoon's Central Business District where the presence of the River could be acknowledged. Most developed Riverbank park areas were designed for passive use, with relatively few opportunities and facilities for public gatherings and festivities. School children were taught to fear the River, as was demonstrated each spring through the pre-Gardiner Dam ice flows and high water levels. (This annual experience, as well as a considerable amount of instability in the soil, were major factors in discouraging early development of much of the Riverbank for purposes other than parks or natural open space). Also, the rural Riverbank areas were regarded by many people as a depository for garbage, abandoned vehicles, and other refuse.

The Meewasin Valley Authority, within a very short period of time following its establishment, was able to change the public's fear and environmental insensitivity towards the River and its valley. The single most important vehicle for this change was the construction of the first phase of the Meewasin Valley Trail. Begun in 1982 with a $500,000 grant from the Devonian Group of Charitable Foundations, the Trail began as 12 kilometres of paved pathway (for pedestrians and bicyclists) on both sides of the River. Today, the entire Trail, hard and soft landscaped (also to accommodate skiers and, in places, horses), encompasses 44 kilometres, with plans for expanding the system in the future to add another 73 kilometres.

The Trail allowed Saskatonians to rediscover a part of their heritage and to revive their awareness of the River. The Trail physically brought people down to the River to walk and to enjoy its natural beauty within an urban area. It also brought more people *onto* the River as its recreational use grew to include rowing, canoeing, waterskiing, tour boats and canoe rentals. These uses are often not compatible,

resulting in informal controls, when necessary, through the limiting of access to the River from public land. Increased use has necessitated the development of regulations; however, this has had to occur through Federal legislation which has been a very complicated and time-consuming process.

The River also provided a scenic backdrop and an opportunity for staging public events in the City's Riverbank parks. As more people rediscovered the River, the City received more and more requests to utilize nearby parks for festivals, special events and mass gatherings. Thousands of people are attending such activities, which from the late spring to early fall occur almost every weekend, and which thereby place major physical demands on the landscaping and infrastructure, as well as significant conflicts with the ability of these parks to continue to serve passive uses.

As a result, during 1990, a needs assessment of five Riverbank parks is being undertaken as a joint project of the City of Saskatoon and the Meewasin Valley Authority. The assessment will result in a programme plan and a facilities master plan which will address the infrastructure requirements of these parks, as well as a programme strategy and allocation policy which will attempt to provide a compromise solution to the conflicting uses and the resulting physical damage to the landscape.

As part of a separate initiative, the City and the Authority will be working with the Provincial Government to redevelop a portion of the Central Business District in order to integrate it with the River. The South Downtown Redevelopment Project will attempt to provide major public amenities which can accommodate, within close proximity to the River, large numbers of people. The River will serve as a focus for providing new vitality to Saskatoon's Downtown.

Another early legacy of the Meewasin Valley Authority was its educational and interpretive programme provided at the Beaver Creek Conservation Area. This project was constructed on land which was donated to the City and which had an early history of use as a public beach and picnic area. The Authority converted the area into a series of hiking trails and created an educational programme for interpreting the natural prairie environment. The Conservation Area's programmes have been incorporated into the curriculum of Saskatoon's elementary schools. They have also provided a means for increasing the general public's awareness of nature and conservation issues.

Projects with a high public profile (including park development and the establishment of an annual winter festival) have gained considerable notoriety for the Meewasin Valley Authority. Yet, the public still looks to the Authority as a public sector guardian of the environment in and around Saskatoon. A survey undertaken in 1989 indicated that the public considers the Authority's most important role with respect to Riverbank lands to be restoring damaged areas, conserving natural areas and facilities, and controlling the type of development taking place along the River. Over 80 percent of the respondents identified these three functions as having high priority. Approximately three-quarters of the respondents wanted the

authority to be more involved in preserving heritage resources, while less than two-thirds favoured the provision of environmental education and other programmes. Only 52 percent of respondents wanted the Authority to be involved in the development of more recreational facilities along the Riverbanks.

THE INTERFACE BETWEEN THE MEEWASIN VALLEY AUTHORITY AND THE CITY OF SASKATOON

From a public relations perspective, the Meewasin Valley Authority suffered in its initial years from the original legislation which gave it the power to act as a regulatory agency. The Authority could exercise controls that exceeded or superseded those available to politically accountable municipal governments under their zoning, building and development control by-laws. While these powers remain within the Authority's legislation (although the extent of its jurisdiction has been curtailed), their application has gained acceptance through various consultative and liaison structures, formal and informal, that have been put in place.

Formal liaison between the Authority and its partners starts with the Board of Directors. For example, the City of Saskatoon's four representatives on the Board have always consisted of three elected officials and one senior administrator. This arrangement has provided for positive and continuous links between the Authority and the two separate parts (political and administrative) of the municipal government.

At the administrative level, informal quarterly meetings are held by senior staff of the City and the Authority. These are information sessions which allow broad areas of interest to be discussed, including the identification and priorization of capital projects. (To date, the general practice has been that the Authority has undertaken capital improvements on City-owned open space and the City has provided the subsequent maintenance. Formal development/maintenance agreements have been established to define these respective roles and responsibilities). Staff from both bodies are regularly invited to participate on each other's administrative steering and advisory committees.

THE BENEFITS TO THE CITY OF SASKATOON PROVIDED BY THE MEEWASIN VALLEY AUTHORITY

The Meewasin Valley Authority has provided another lever for planning and regulating the development of the South Saskatchewan River valley. By concentrating its attention and regulatory powers over conservation and the preservation of the valley, the Authority is able to assure that this specific perspective will not be forgotten when various development projects are proposed for the geographic area under its jurisdiction.

Because of its broader mandate and range of responsibilities, the City of Saskatoon may have specific development objectives which differ in emphasis from those which are promoted by the Authority.

When they arise, these differences are more likely to focus on priorities and perspectives. For example, there is an ongoing difference of opinion between the City and the Authority over the use of certain sites along the River in the winter for dumping snow collected from City streets. The City's perspective on the issue reflects the cost implications of pursuing alternative snow dump sites. The Authority's position relates to the environmental and aesthetic impact on the current Riverbank sites. Discussions on this matter continue, with a general understanding that this is an issue which in the long term will have to be resolved, particularly as public recreational use of the riverbanks increases.

These conflicting viewpoints are a healthy component of the regulatory process. They ensure that as decisions are made on various development projects, all perspectives and objectives have been consciously considered. The result might involve a compromise, middle-of-the-road position for both parties; nevertheless, the decision will have been based on a more broadly-based consideration of the issues than would occur if the regulatory authority was only vested with the municipality. Despite the potential conflict that might arise on specific issues, it must be noted that the City has formally stated its support, within its Municipal Development Plan, for the "goals of the Meewasin Valley Authority in protecting and enhancing the natural and heritage resources of the Meewasin Valley."

The City has also benefitted from the additional funding that has been generated through the Meewasin Valley Authority for projects which will enhance the public amenities available in and around Saskatoon. One new Riverbank park was constructed and several others were completely redeveloped, with funds provided, in part, by the Authority. In addition to the funds contributed by the Meewasin partners, the Authority has been able to tap into the financial resources of the Federal Government, corporations and individuals. The Authority currently operates a very successful Foundation, which receives financial donations from across Canada.

THE FUTURE PRIORITIES FOR THE MEEWASIN VALLEY AUTHORITY

In September 1989, the Meewasin Valley Authority celebrated its Tenth Anniversary. One part of the celebrations involved the initiation of a twenty year action plan which will address the next phase of implementation of the 100 Year Conceptual Master Plan. While the new action plan is not scheduled for completion and approval until late 1990, there are three issues which should be addressed.

First, river water management will likely be the most important concern during the 1990s and into the next century for residents in and near Saskatoon. The Meewasin Valley Authority has become a clearing house for the articulation of these issues and concerns. There is no other local agency which is as well positioned to bring together the major users of the South Saskatchewan River. Water

management considerations present the strongest reasons for having representation in the Authority from both the Federal Government and the Rural Municipality of Corman Park.

Second, the urban-rural interface needs to be emphasized by the Authority. The City of Saskatoon continues to grow, and the expanding urban environment and population presents growing pressures on the surrounding rural areas. The City of Saskatoon and the Rural Municipality of Corman Park have developed a close working relationship through the District Planning Commission and through project-specific consultation. However, just as the Authority provides a conservation and preservation perspective to the planning processes for the urban environment, so can it play the same role in the rural areas. This role needs to be examined within a context that is sensitive to the private landowners. However, such action cannot occur without the full co-operation and participation of the Rural Municipality of Corman Park.

Third, the Authority has facilitated the development of one of the most significant heritage sites in North America. The Wanuskewin Heritage Park is a national historic site on which archaeologists have determined that habitation by the Plains Indians dates back by at least 8,000 years. The development of this Park (involving an initial capital budget of over $9 million) is being realized through funding from the Federal and Saskatchewan Governments, the City of Saskatoon, numerous corporate donors, and several other external sources. Besides its tremendous tourism potential, the Wanuskewin Heritage Park offers a unique opportunity to allow Saskatchewan's residents of Indian ancestry to participate in the development of a place of great historical, cultural and spiritual significance. Recently, the Park was awarded a Canadian heritage award from the Canadian Parks Service, in recognition of the active participation of Native people in the planning and management of the project.

CONCLUSION

The greatest accomplishment of the Meewasin Valley Authority over the past ten years has been its ability to take the visions and inspiration provided in the original Conceptual Master Plan and to create a high level of public awareness and knowledge about the environment, the South Saskatchewan River, and the natural and human heritage of the valley. The South Saskatchewan and the Saskatchewan Rivers are over 600 miles long within the Province of Saskatchewan alone. The portion which falls within the jurisdiction of the Meewasin Valley Authority represents about 3 percent of this length. Nevertheless, the Authority's success at making the public in Saskatoon more aware of how precious a resource this River is will, we hope, be an inspiration to others along the Saskatchewan Rivers and to people living along other rivers.

THE NATIONAL CAPITAL COMMISSION: PERSPECTIVES ON RIVER CORRIDOR MANAGEMENT IN THE NATIONAL CAPITAL

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INTRODUCTION

The character of the National Capital has been and continues to be profoundly influenced by the three major rivers and one canal which pass through it. Early Federal efforts to improve the appearance of the Capital beginning in the late 1890s focused on its river corridors, and this interest has been maintained over the past 90 years. Today, the Federal Government, through the National Capital Commission (NCC), owns extensive tracts of river shoreline of diverse character in the Capital in trust for the people of Canada.

In this paper the evolution of planning and management of river shorelines by the National Capital Commission and its predecessors will be described from an environmental perspective. The paper is structured as follows:

1. What the NCC is and what it does;
2. The history of Federal involvement in the Capital's rivers;
3. Current approaches to river corridor planning and management;
4. Future challenges and issues.

THE NATIONAL CAPITAL COMMISSION

The National Capital Commission (hereafter referred to as the NCC) is the Federal planning agency responsible for ensuring that the Capital is provided with a setting befitting its stature as a National Capital. It is a Crown Corporation, and while deriving some revenue from the property it owns, the NCC relies heavily on annual appropriations from the Federal Government.

The National Capital Act directs the NCC to "prepare plans and assist in the development, conservation and improvement of the National Capital Region," an area encompassing some 4,660 square kilometres. The NCR extends beyond the Ottawa-Hull urban area to rural areas in both Ontario (2,720 km^2) and Quebec (1,940 km^2), with the two provinces separated by the Ottawa River.

The NCC has no legislative authority to control land use outside of the lands it owns. This is the purview of local and regional governments. Nonetheless, the approximately 50,000 ha of NCC and other Federal lands in the Capital area (encompassing some 18% of the NCR) is a powerful planning tool in itself, as Federal jurisdiction must be respected in the plans of other levels of government. The two major Federal landholdings in the NCR include Gatineau Park and the Greenbelt, in addition to parkway and

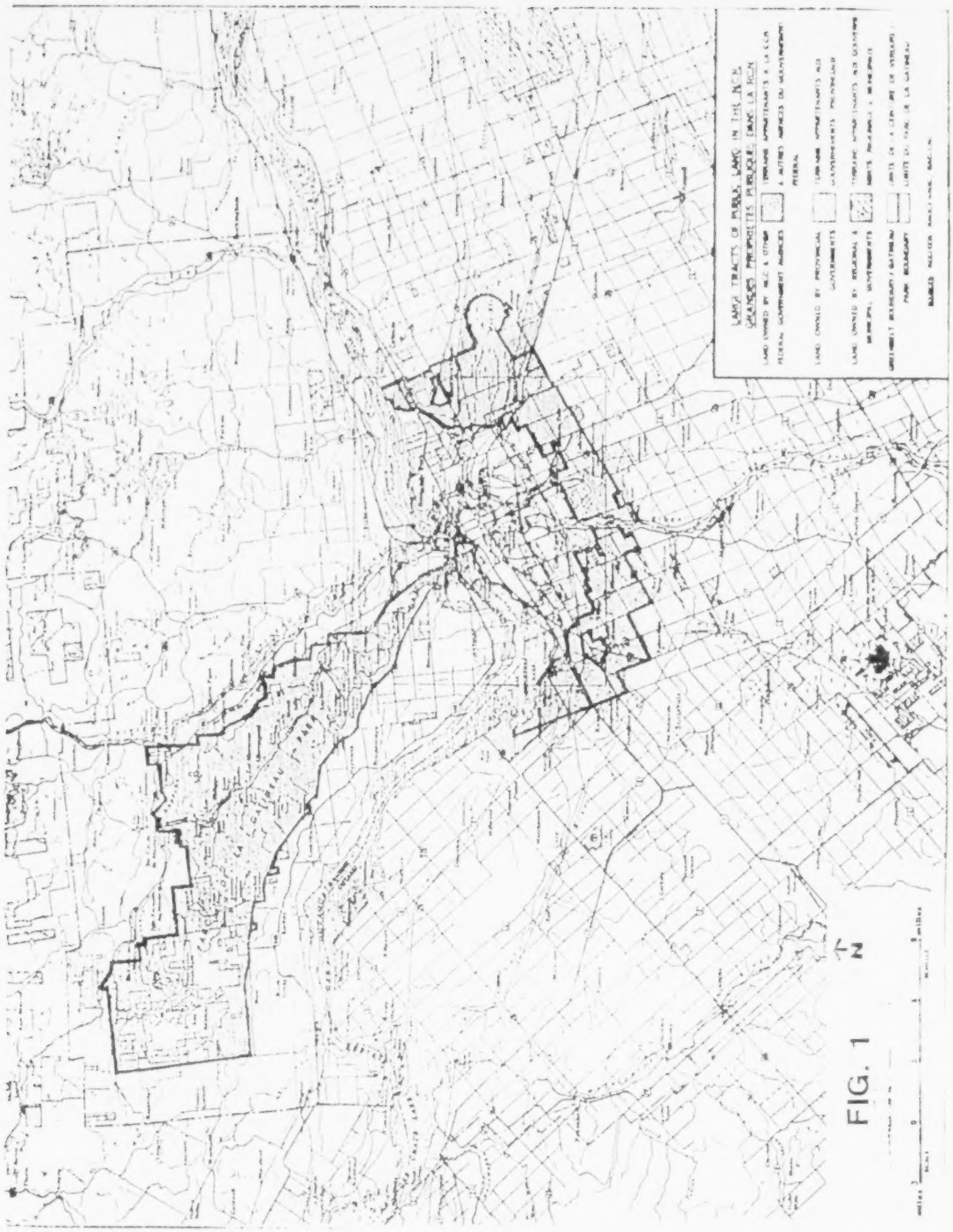


FIG. 1

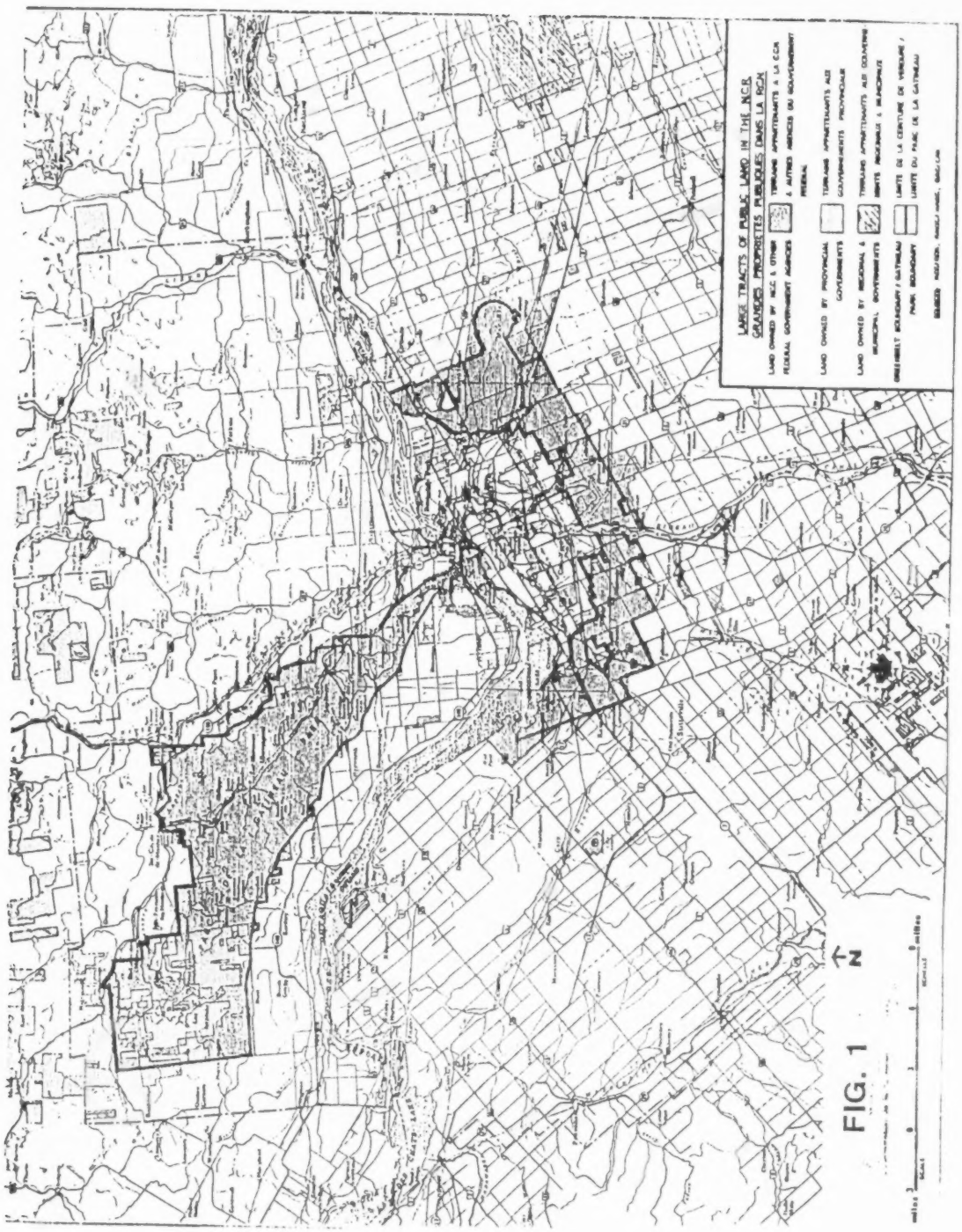

LARGE TRACTS OF PUBLIC LAND IN THE NCR
GRANDES PROPRIÉTÉS PUBLIQUES DANS LA RCN
LAND OWNED BY NCC & OTHER FEDERAL GOVERNMENT AGENCIES
TERRAINS APPARTENANTS À LA CCN & AUTRES AGENCES DU GOUVERNEMENT FÉDÉRAL
LAND OWNED BY PROVINCIAL GOVERNMENTS
TERRAINS APPARTENANTS AUX GOUVERNEMENTS PROVINCIAUX
LAND OWNED BY REGIONAL & MUNICIPAL GOVERNMENTS
TERRAINS APPARTENANTS AUX GOUVERNEMENTS RÉGIONAUX & MUNICIPAUX
GREENBELT BOUNDARY / GATINEAU PARK BOUNDARY
LIMITE DE LA CEINTURE DE VERDURE / LIMITE DU PARC DE LA GATINEAU
BASED ON NCC PUBLIC LAND BASELINE
N
miles
kilos

FIG. 1

river corridors closer to the Capital core (see Figure 1).

The NCC's activities are governed by its "Mandate" statement, which consists of three elements:

a. making the Capital into Canada's meeting place by encouraging the active participation of Canadians in the evolution of their Capital;

b. using the Capital to communicate Canada to Canadians in order to assist in the development and highlighting of Canadian national identity; and

c. safeguarding and preserving the Capital for future generations.

Much of the past Federal effort towards enhancing the Capital's stature has been directed to its physical development, and the Capital has today reached a mature stage of physical development. Given this, more and more of the NCC's activities in future will likely be focused upon highlighting the contributions the Capital can make to a greater understanding of Canada by its people through events, programmes and symbols in the Capital.

FEDERAL INVOLVEMENT IN RIVER CORRIDORS

THE CAPITAL'S RIVERS

The feature which most affects the geography of the Capital is its three major rivers--the Ottawa, the Gatineau, the Rideau--and the Rideau Canal.

The dominant river is the Ottawa, which served as a major voyageur route for the fur trade, and has since been exploited for log transport and hydro-electric power generation. Hydro power is still generated via a major dam near the core of the Capital, while recreation has become the prime other use. The Gatineau River, second to the Ottawa in size, extends south from the Outaouais and is still used for log transport purposes. It is very much still a "working" river.

The Rideau Canal cuts through the City of Ottawa for a distance of 8 km and penetrates the core to the Ottawa River. The Ottawa section forms part of a larger system along the Rideau River, which was built during the 1820s to provide unobstructed navigable waters from Lake Ontario for strategic and commercial reasons. Today, the Rideau Canal Waterway is used almost exclusively for recreational purposes, and is administered by the Canadian Parks Service as part of its Heritage Canal system.

Within the City of Ottawa, the 8 km Canal is roughly paralleled by the Rideau River. Despite its passive nature, it is not heavily used on account of the waterfalls and dams at its extremities, where it meets the Ottawa River and the Canal.

A significant amount of shoreline along all these waterways, particularly the Ottawa River and Rideau Canal, is in Federal ownership and publicly accessible.

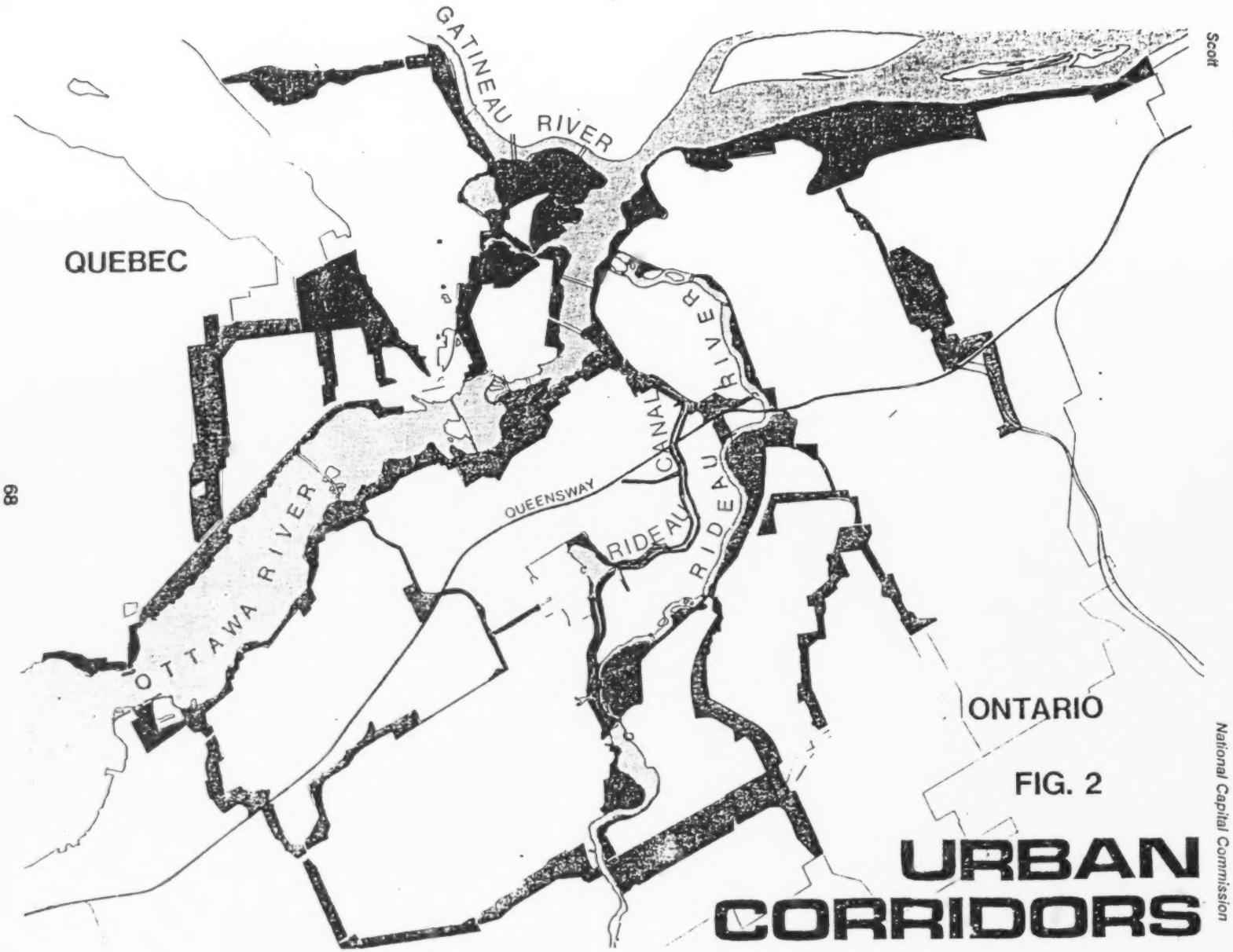


FIG. 2

URBAN CORRIDORS

HISTORY OF FEDERAL SHORELINE PLANNING IN THE CAPITAL

Early Federal efforts towards the improvement of the Capital were directed largely to its beautification through the efforts of the Ottawa Improvement Commission (formed 1899). One of the OIC's first targets was the clean-up of the banks of the Rideau Canal; much of the warehousing and storage yards which littered its sides were replaced by a landscaped corridor containing the first leg of what became the extensive parkway system which now graces the Capital. The primary motive in this particular programme was aesthetic, and not related to environmental quality as we know it today.

The acquisition of river shorelines formed a key element in subsequent plans for the physical improvement of the National Capital, including the plans of Todd (1903), Holt (1915) and Gréber (1950). All relied heavily on the scenic and recreational opportunities offered by river corridors as the underlying rationale for their protection, and many formed the basis of scenic parkway routes. Shoreline along both the Ottawa and Rideau rivers was acquired with this intent in the decades that followed.

The most influential Federal plan for the Capital was the Gréber Plan of 1950. This plan advocated the removal of rail lines from the city centre, some of which still flanked the Rideau Canal in the core area. It also triggered the acquisition of many shoreline buffers for parkway development; most notable is the Ottawa River Parkway extending west from the core of the Capital. Other areas of shoreline were also acquired along the Ottawa River.

The Gréber Plan also proposed the creation of a Greenbelt surrounding the City of Ottawa which, although intended to be manifested through zoning, was eventually acquired outright by the NCC beginning in 1958 in the absence of municipal action. Several important river and creek corridors were protected, including a portion of the Rideau River. The extent of shoreline currently under Federal ownership is shown in Figure 2.

Today, the Rideau River, and the Ottawa River in the core area, form the focal point of river use in the Capital. The Rideau Canal, essentially a linear park some 7 km in length, features many attractions along its length, including parkways, pathways, restaurants, interpretive plaques, museums, cultural attractions such as the National Arts Centre, and locks for navigation. Its most imaginative use is to be found in the 7 km skating rink in winter, focal point of the 2-week Winterlude celebrations. Access to the Canal for all purposes is greatly enhanced by the presence of a hard shoreline.

CURRENT APPROACHES TO RIVER CORRIDOR PLANNING AND MANAGEMENT

SHORELINE CHARACTER

It is evident from the previous discussion that the Capital features a diversity of shorelines of varying types and qualities, ranging from hard shorelines accommodating fairly intensive, active uses such as those found along the Rideau Canal, to semi-natural shorelines along the Ottawa River which cater to more passive leisure pursuits, to naturally evolving shorelines such as those found along the north shore of the Ottawa River and along several creeks in the Greenbelt.

The character of these shorelines has been profoundly influenced by past development and management philosophies and practices. Much of the shoreline in the Capital is comprised of sensitive marine clays which are very prone to erosion. To reduce this threat and at the same time accommodate parkways and footpaths along the Ontario side of the Ottawa River, much of its shoreline has been extensively modified by landfilling and shore stabilization. Many of the techniques undertaken two or three decades ago reflect very much an engineered solution to a problem which might be approached quite differently today. Nonetheless, and independent of the approach adopted, the lower levels of erosion resulting from shoreline stabilization have resulted in improved water quality in adjacent locales.

SHORELINE MANAGEMENT

The management of stabilized shorelines following the completion of remedial work continues to evolve. Along the Ottawa River Parkway, for example, many areas are now being allowed to regenerate with little interference into a more natural state. While this has obvious benefits (including enhanced stabilization and reduced maintenance expenditures), it is important to have an overall strategy for the river corridor itself where management priorities are clearly stated. A *laissez-faire* approach may not always be suitable where views of the river at strategic points are ignored in a management plan, a situation illustrated by the Ottawa River Parkway. All differing objectives must be factored into the management equation.

The naturalisation approach is appropriate in more natural settings, and in fact, in the portion of the Greenbelt east of the Capital where the sensitive marine clay slopes are most prone to erosion, Commission policy is to let nature take its course. There is virtually no development in this portion of the Greenbelt save some agricultural uses and a recreational pathway, both of which are generously set back from the river's edge.

SHORELINE PLANNING

Several examples of current efforts in shoreline planning are highlighted below.

Green's Creek: This tributary of the Ottawa which flows through the eastern portion of the Greenbelt features steep marine clay slopes of great sensitivity. Noted as one of the best sources for fossil "nodules" from the post-glacial Champlain Sea, its watershed is carefully monitored and managed so as to ensure minimal human disturbance.

A watershed study is now under way to examine the interaction between soils, slopes, hydrology, and stream morphology, along with other factors, to determine proper land use and management over the long term in terms of visitor access and facilities development (i.e., trails, crossings, agriculture). The study will also provide information to the Commission concerning the sensitivity of the watershed and the creek to the effects of storm runoff from existing and proposed urban development beyond the Greenbelt. This will assist other levels of government in devising appropriate stormwater management plans which will minimize further water quality problems in the Green's Creek watershed.

Rideau River–Greenbelt: A second example of an integrated approach to river corridor planning and management is found in the Rideau River Corridor Development Plan. Encompassing Greenbelt lands within the corridor, this plan involved the systematic identification of goals and objectives in terms of environmental management, Capital "gateway" function and visitor access. Critical to the success of this planning exercise was the linkage with plans and objectives of other agencies, and in particular the development plans and boater usage criteria of the Canadian Parks Service.

The rehabilitation of shorelines degraded by cattle which have direct access to the river for drinking was identified as a priority. The solution devised to overcome this problem demonstrates a successful integration of multiple objectives. Most severely degraded is the west shoreline between the Black Rapids lock station/Victory Hill area (the latter proposed as a day-use visitor facility) and a significant wetland 1 km to the south which is suitable for interpretation. Removal of cattle access to the shoreline would be facilitated by providing water through a new well dug further inland, and fencing the corridor to keep livestock away from the river. This corridor would also accommodate a trail from the lock station to the wetland and its interpretive boardwalks.

Confederation Boulevard: This initiative is a major pedestrian and ceremonial route now under development in the Capital's core, which will link major national institutions such as Parliament Hill, the Supreme Court, the National Gallery and the Museum of Civilisation. Its importance in the context of this discussion is its approach to the use of the Ottawa River as a focus, a theme, and a unifier between two distinct parts of the Capital and cultures of Canada.

In the past, the Ottawa River has been used (and abused) as a transportation route and an open sewer; Federal development turned its back on the river as a result. The river is now viewed not as a barrier, but as a tremendous opportunity for opening up the Capital and its national institutions. There is now an effort to give the river a public face, as seen in the new Museum of Civilisation. The two bridges on the Boulevard spanning the river form an integral orientation function for highlighting the national institutions in the core area of the Capital. The first phase of the Boulevard, superimposed on an existing loop of streets, has been completed.

PLANNING TOOLS

An important tool which has been formally adopted as part of the NCC's activities is the Federal Environmental Impact Assessment (EIA) process. All projects which demonstrate the potential to alter the natural environment are screened through this process during the planning stage, and recommendations are made to alter or mitigate any damaging effects. The NCC periodically undertakes a variety of rehabilitation projects along the Capital's shorelines, and EIA has acted as a safety net to broaden the scope of factors and design alternatives considered during the planning process (including the introduction of non-structural options).

The process is now being expanded to encompass land use planning projects. Its influence can be seen in recommendations concerning the Core Area West development in the City of Ottawa, where the NCC (as a major landholder) is spearheading a joint planning exercise covering some 225 ha of land with other levels of government. While essentially an urban mid-town development, the EIA has recommended the reversion of a small, abandoned, derelict canal running through the proposed development area to a natural state. This represents a significant departure from traditional views of waterway and shoreline enhancement in urbanized areas.

WHERE DO WE GO FROM HERE?

FEDERAL LAND USE PLAN

The Federal Land Use Plan was approved by Cabinet in 1988, and will provide the policy direction to the NCC for the future co-ordination, planning and use of Federal lands in the Capital. While focusing on Federal lands, there is an explicit recognition in the plan that the quality of river shorelines is important to the future quality of the Capital. Through policies contained in this plan, the NCC intends to encourage and work with other jurisdictions to build upon past initiatives in river corridor protection in the Capital.

Within the existing network of publicly-owned shorelines there are several critical gaps breaking the continuity of the system which are, according to the Plan, "inhibiting the full enjoyment of the Capital's open space system." Additionally, water quality is recognized in the Plan as an issue which "restrict(s) the full utilization of the Capital's shoreline resources and detracts from the Capital's image."

Policies in the Plan intended to address these issues focus upon protection and management, as follows:

a. Accept, as a principle, that waterfront lands should be accessible, visible, and held in public ownership.

b. Assign a high priority to the acquisition, exchange or rental of those shoreline lands required to complete shoreline linkages in the urban area of the Capital, and to co-operate with other jurisdictions in ensuring the preservation and protection of shorelines outside the existing urban areas.

c. In more detailed sector plans analyze, in collaboration with other jurisdictions, the development potential and constraints of shoreline lands, in order to provide clear guidance on the development of shoreline amenities.

d. Investigate, with other jurisdictions in the Capital, the establishment of a long-term programme to improve the water quality of the major rivers in the Capital.

Several thrusts are apparent in the above policies. First, the growth of the National Capital Region and the commensurate rise of local planning powers have lessened Federal influence in shaping its future growth. Furthermore, land acquisition by the Federal Government on the scale of past initiatives to secure shoreline protection is no longer possible given the climate of fiscal restraint which prevails and is likely to continue. Land acquisition is now severely limited to only the most extraordinary of situations, and is restricted primarily to the core area.

The tremendous growth of the National Capital Region over the past quarter century has followed the bulk of Federal land acquisition. Urban expansion now threatens to engulf river shorelines beyond Federal land holdings such as the Greenbelt; local and regional land use planning powers are today the major determinants of what destiny awaits these shorelines. The Commission, with no statutory land use authority beyond lands owned by the Federal Government, is increasingly finding itself in the role of facilitator to convince local planning authorities of the special nature of the Capital, and that the protection of river shorelines constitutes a far-sighted investment for the citizens who live in the Capital.

Finally, the increasing magnitude, expense, and complexity of problems such as shoreline protection and water quality are clearly beyond the ability of one level of government to resolve. All levels of government must co-operate in proper planning along river corridors so as to ensure that goals

unattainable by one agency alone can be achieved by pooling resources of all agencies, and to ensure that the goals of one agency are not undermined by those of another. The scarcity of public funds and resources has forced a greater sense of responsibility and co-operation upon governments.

CASE STUDIES

Two examples of new approaches to river corridor protection illustrate the above points.

Ottawa River East: This first example involves the protection of the Ottawa River shoreline easterly from the Greenbelt in Ontario, and demonstrates both the maturing of local planning powers and the imaginative use of municipal planning tools to implement a particular vision.

Bounding the north limits of Orleans--a satellite community eventually to house 130,000 people--is the Ottawa River floodplain. Judicious employment of land use planning instruments and strategic land purchases by two local governments and the Regional Municipality of Ottawa Carleton has served to protect some 5 km of shoreline out to a regionally significant natural area, Petrie Island in the Ottawa River.

A variety of planning tools have contributed to the continuity of a green corridor. Provincial restrictions concerning floodplain development and wetland protection must be adhered to by municipalities in their planning and development approval processes. At the same time, the Regional government has designated the corridor for a future extension of an NCC parkway along the south shore of the Ottawa River which currently terminates in the Greenbelt.

The imaginative use of subdivision and site plan approval processes at the municipal level has also contributed to the corridor's protection. Municipalities have been able to negotiate open space setbacks in excess of provincial standards by combining the above tools with the 5 percent parkland dedication provision in the Ontario Planning Act. Land ownership in large blocks extending to the shoreline has served as an advantage, so that large continuous areas can be secured through one set of negotiations.

The result is that the potential exists for eventually linking Petrie Island via a shoreline trail network to the core of the Capital, a distance of some 19 km.

Rideau River Corridor: The second example, encompassing the Rideau River Corridor for a distance of 6 km south from the Greenbelt, represents a more complex situation. In this area and straddling both sides of the Rideau River is the proposed South Urban Community, which will eventually house a population of over 100,000. Its planning illustrates the complexity of jurisdiction surrounding the Rideau Corridor.

Responsibility for the actual planning of the Community lies with the two separate municipalities which straddle the river; planning of regional infrastructure to serve the two halves of the community is being undertaken by the Regional Municipality of Ottawa-Carleton. The Canadian Parks Service has jurisdiction over management of the Rideau River, which as mentioned earlier is a Heritage Canal, and floodplain control is vested with the Rideau Valley Conservation Authority, a joint provincial-municipal body. Finally, the National Capital Commission has an interest, as the Rideau River functions as a gateway to the Capital.

Because of the variety of interests involved in the Rideau River and in recognition of the special qualities of the corridor, it was agreed among all groups that a special study group was required to determine a long-term vision for the corridor, and to insert this into the planning proposals being developed for the South Urban Community.

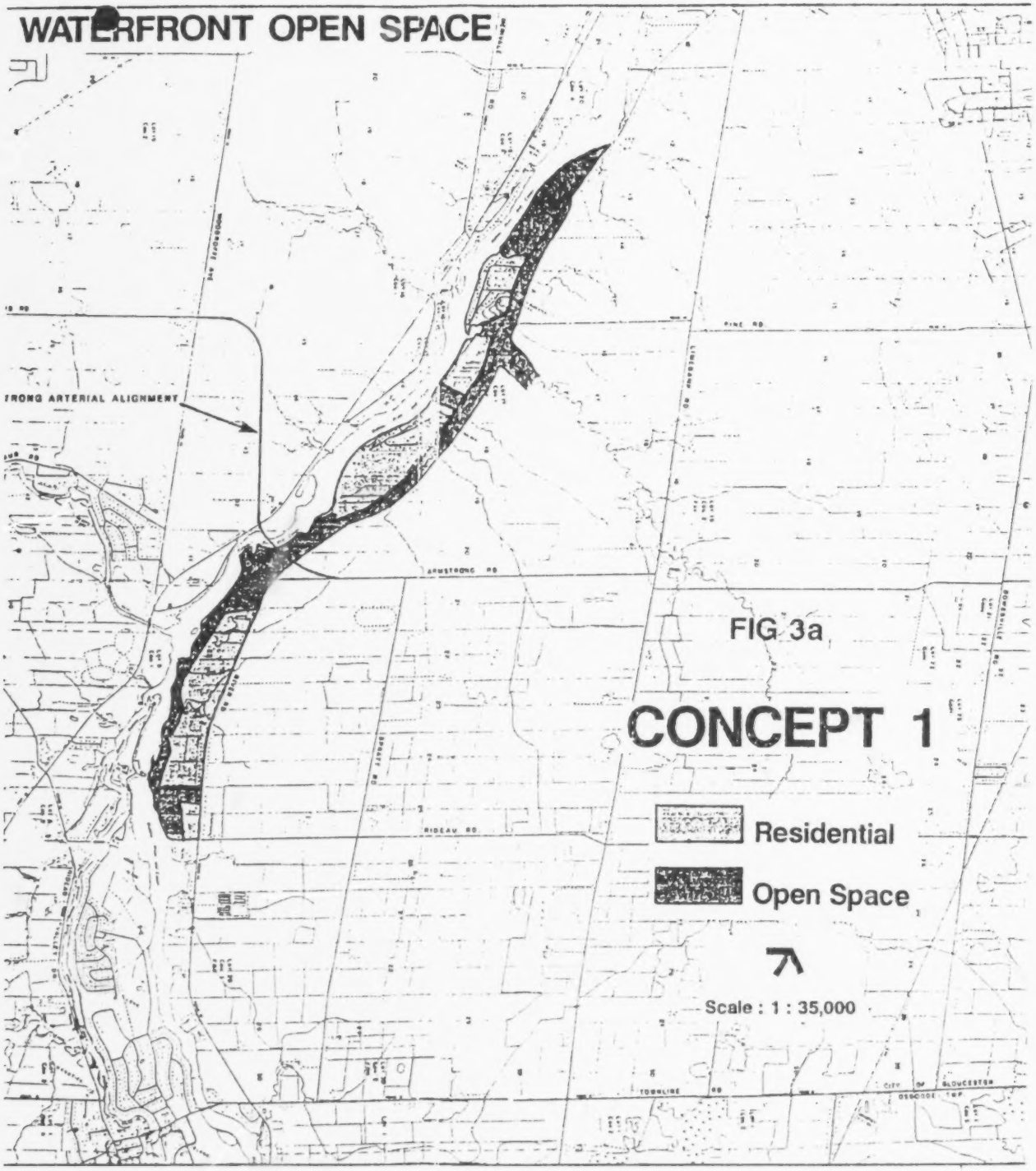
The first task was to delineate the "corridor." At first glance, the two major roads which parallel it appeared to constitute logical boundaries. Upon closer examination, however, it was decided that this convenient but somewhat arbitrary definition was not altogether appropriate, as opportunities lay just beyond the two roads in the form of parallel ravines which could ensure green space continuity where shoreline development already existed.

The corridor is primarily pastoral in nature, although much privately owned, with cottage development dotting its shorelines. Strategic pieces of land, particularly on the west shoreline, had previously been acquired by the municipality, which provided a good base to begin planning.

The development potential of the corridor in light of the proposed surrounding urbanization is considerable. The study group developed a statement of principles which endorsed the maintenance of a primarily "green" aspect to the corridor, while recognizing the legitimacy of existing residential and cottage enclaves and the fact that some future urban development within the corridor should not be precluded.

The governing factors concerning where the "green" aspect of the corridor was most important to protect and where development, if any, would be permitted, included the protection of significant environmental resources within the corridor (e.g., wetlands), preservation of significant views from and of the river, environmental sensitivity of any proposed development (e.g., stormwater management, retention of vegetation), and the potential opportunities (e.g., existing publicly-owned lands) and constraints to the development of a continuous "green" and publicly accessible corridor.

Once the vision and guiding criteria for implementation were agreed upon, they were applied to the corridor itself. Four land use scenarios depicting various combinations of guiding criteria were


WATERFRONT OPEN SPACE
TRONG ARTERIAL ALIGNMENT
FIG 3a
CONCEPT 1
Residential
Open Space
Scale : 1 : 35,000

developed, discussed, and then one was selected, which for the study group best represented the intent of the vision it had developed for the corridor (see Figure 3).

Various opportunities for implementing this plan exist. On the east side of the river, where a smaller amount of land is in public ownership, the municipality intends to employ the 5 percent parkland dedication provision in provincial planning legislation to protect some key areas of the east shoreline. One possible protection measure involves the siting of stormwater retention ponds within the corridor serving the development of the South Urban Community. These could be created and managed as natural wetland habitat which would fit the existing character of the corridor, and would be over and above the 5 percent parkland dedication.

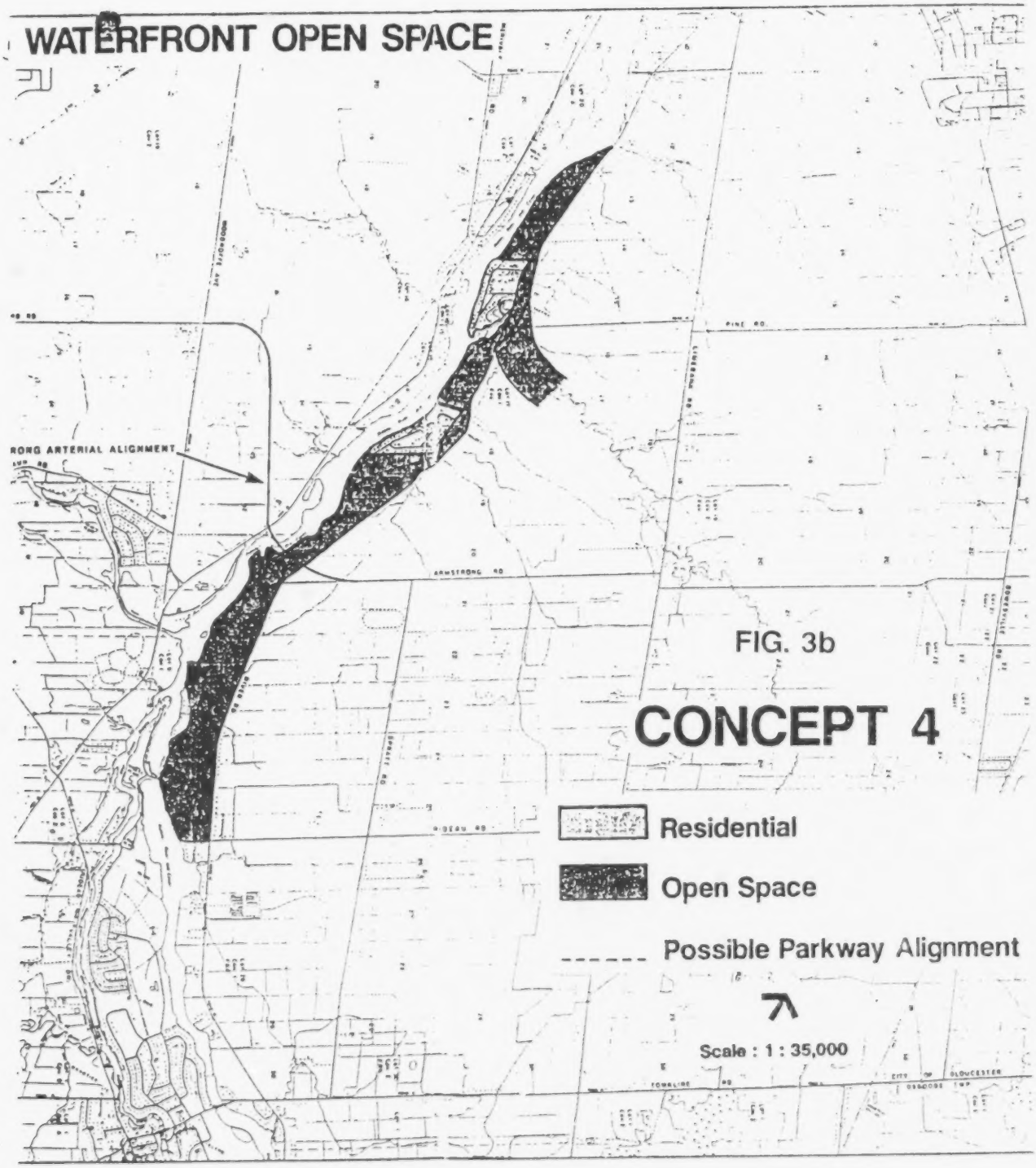
The Regional Municipality of Ottawa-Carleton intends to protect the rights-of-way for three bridge crossings of the Rideau River within the corridor, and is considering combining acquisition for bridge approaches and adjacent portions of shoreline into one expanded package. It also has proposed a parkway along the east side of the river, although whether this would be appropriate for an essentially rural corridor is the subject of some discussion. The floodline regulations of the Rideau Valley Construction Authority also provide opportunities for restricting development in key areas.

For the National Capital Commission, the opportunity may arise out of the upcoming development of a Master Plan for the Greenbelt in order to acquire key parcels of land contiguous with the south side of the Greenbelt to assist in implementation of the vision. Given the current fiscal climate, this would likely occur through boundary adjustment elsewhere to provide the necessary funds. The NCC could also initiate implementation of the Rideau River Corridor Development Plan within the Greenbelt to provide linkages for any trail system developed to the south.

The above vision is in the final stages of definition, and if agreement in principle can be reached between all agencies involved, it will gain legal land use designation status through the planning exercises being carried out by the two local municipalities for their portions of the South Urban Community.

THE NEED FOR INTEGRATED PLANNING OF AND BEYOND RIVER CORRIDORS

While the National Capital Commission has had an extensive involvement in the protection and development of the Capital's shorelines, this does not necessarily mean that their long-term quality has been assured. We have, for example, seen a gradual deterioration in water quality in the National Capital to the degree that extremely popular swimming beaches along the Ottawa and Rideau rivers are being closed with increasing regularity after storms.


WATERFRONT OPEN SPACE
RONG ARTERIAL ALIGNMENT
FIG. 3b
CONCEPT 4
Residential
Open Space
Possible Parkway Alignment
Scale : 1 : 35,000

Apart from the indication of general environmental decline, poor water quality can--even where recreational use is not water-based--impair the quality of the visitor experience within the shoreline corridor. This presents a major challenge for the NCC in terms of protecting the full benefits derived from its considerable past investments in river shoreline protection.

The NCC's interest in water quality issues, however, has traditionally not been a prominent one. The reason for this lies partially with the lack of legislative authority for the NCC to plan beyond Federal lands. Stormwater runoff from urbanizing areas is one prime source of water quality deterioration in the Capital, and much of this must pass through NCC river corridor lands. Stormwater management techniques are improving in new developments, but most areas draining through NCC-owned shoreline were developed before the application of flow attenuation measures such as retention and detention ponds.

The issue of water quality suggests that the quality of the river and shoreline environment is as much dependent upon what happens outside of the river corridor as that which happens within it. One important element of planning in the South Urban Community will be to provide proper stormwater management which will serve to attenuate not only the amount of stormwater runoff into the Rideau River, but also minimize water quality problems as well. This is important not only for the immediate corridor which must receive the water, but just as importantly also for downstream areas, if already serious water quality problems are not be further exacerbated.

For the NCC's part, it is now beginning to recognize the effects that its activities has on water quality. This is especially pertinent in the Greenbelt, where some 100 private agricultural operations on land leased from the NCC produce wastes which often find their way into drainage ditches which eventually feed via tributaries to the major rivers. These issues require attention in the near future.

Integrated planning in the protection and quality of river corridors is essential. However, this does not apply solely to substantive areas of planning, but just as importantly to the procedural complexities imposed by differing and sometimes conflicting jurisdictions administered by a plethora of agencies. There must be a common will to work towards a common vision, and from there to involve all relevant agencies in implementation, whether through the application of appropriate land use designations, site plan and development measures, regional water management and open space planning, down to municipal by-laws regulating clean-up after domestic animals.

The National Capital Commission must encourage and support proper land use planning beyond the river corridors under its jurisdiction, and consider the watershed as an integral part of river corridor management.

APPENDIX 1

DISCUSSION PAPER: TOWARDS A RIVER FRONT CORPORATION FOR THE WINNIPEG REGION

Executive Summary

Manitoba Urban Affairs[****]

The report makes the following recommendations:

1. *Need for a Central Agency*: A central agency is needed to co-ordinate effort, focus resources, ensure ongoing planning and provide continuity of commitment towards the Winnipeg region's rivers and streams.
2. *Riverfront Corporation*: A riverfront corporation should be established to enhance Winnipeg's river corridors as natural and heritage resources, focal points for community activities and tourist attractions.
3. *Incorporation*: The riverfront corporation should be implemented through the Corporations Act of Manitoba. The articles of incorporation should set out the purposes and intent of the corporation, and requirements to ensure control and accountability.
4. *Shareholders*. Due to its highly public nature, the partners in the riverfront corporation should include the Province of Manitoba, the City of Winnipeg, the rural municipalities in the Winnipeg region and the Government of Canada.
5. *Mandate*. The proposed riverfront corporation should be public, not-for-profit and emphasize public-private partnerships. There should be a balanced emphasis on conserving significant natural and heritage resources while also developing innovative and exciting projects compatible with the resources. The riverfront corporation should have a mandate to research, plan, design, develop, program, and promote the river corridors. The corporation should be permitted to acquire land through gift, purchase or bequest, but should be required to turn over the property to one of the shareholders once developed. Operation and maintenance should be the responsibility of the landowner on whose land a project is being developed, subject to the agreement of the landowner prior to development. The corporation should have a reliable financial base and the necessary powers to administer an organization.
6. *Regulation*: Management or regulation of the rivers and streams should be the responsibility of existing legislative authorities (Canada, Manitoba and the municipalities),

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[****]Reprinted with permission.

with efforts made to improve the effectiveness and efficiency of the administration of the legislation.

7. *Planning Area*: All rivers, creeks, coulees, drains and the Red River Floodway in the Winnipeg region should be included in the planning area. The land to be included in the planning area should be defined through public consultation as part of the preparation of a long-term plan for the river corridors.

8. *Governing Body*: The governing structure of the corporation should be a board of directors consisting of elected officials from the principal public funders, chief administrators from the principal public funders, and members of the public with a commitment to the community-at-large and the general principles of the corporation. The public members should either be appointed by the shareholders or elected on a staggered, annual basis by members of the public who have paid a fee and hold a membership in the corporation. The total membership on the board should not exceed 10-12 persons to ensure effective and efficient performance. The chairperson should be appointed jointly by the partners. The term of a member's appointment should be fixed so that new ideas and interests are continually being brought into the corporation's decision-making process. Remuneration should be limited to expenses since members would be serving in their capacity as publicly elected official or public service employee or as a member of the community performing a public service.

9. *Staffing*: The corporate staff should be limited to six members: a general manager, three professionals and two support staff. The organization should only acquire additional staff if contracting for services proves inefficient or uneconomical. The corporation should use consultants when more specialized skills are required.

10. *Funding Source*: Initially, the principal source of revenue should be the shareholders of the corporation. A strong emphasis should be placed on financial development with the long-term aim of reducing dependence on government funding. A trust fund should be created for charitable contributions and revenues from fund-raising.

11. *Funding Arrangements*: Funding should be negotiated through a unanimous shareholder's agreement. It can either be negotiated as a standing annual commitment or as a fixed term commitment (e.g., five years) which can be renegotiated at the end of the period.

12. *Funding Amount*: At a minimum, the corporation should have combined annual revenues from its shareholders of $2 million to $4 million. Revenues in the first two to three years should reflect the transition period to full operation.

13. *Expenditures*: As a guide, at least 85 percent of corporate revenues should be spent on projects and no more than 15 percent on administration.

14. *Control and Accountability*: Corporate control and accountability should be ensured through requirements for an outside auditor, annual report, designated fiscal year, conflict of interest disclosure, public board meetings, public access to information and internal procedures.

15. *Public Participation*: Opportunities for the public to become involved in the work of the corporation should be provided through standing community advisory committees, ad hoc project steering committees, public meetings for plan reviews and public open houses for project reviews.

16. *Corporate Identity*: The potential shareholders in the corporation should identify and register a corporate name and trademark prior to the formal public announcement of the creation of the corporation.

17. *Relationship with Other Jurisdictions*:

- **Planning**: The corporation's river corridor plans should be prepared as a guide to the various jurisdictions. Options to give the plans legal effect should only be considered if the decision-making by the jurisdictions fails to advance the objectives of river corridor enhancement.
- **Regulation**: The riverfront corporation should play primarily a lobbying role with other jurisdictions in respect to regulations since it would not have legislative authority.
- **Development**: The corporation should work closely with the landowner who will be receiving the developed project to ensure that the project meets its operation and maintenance requirements. The corporation should abide by all laws and regulations.
- **Land Acquisition/Disposal**: The riverfront corporation should have the power to acquire land in the name of one of the shareholders. Disposal of land acquired by the corporation should be subject to the approval of the shareholders. The riverfront corporation should have first right of refusal on land owned by one of the shareholders and proposed for disposal.

- **Operation and Maintenance**: The shareholders should be responsible for operation and maintenance on their own property. The corporation should develop agreements with the landowner setting out guidelines for operation and maintenance.

18. *Relationship with the Winnipeg Core Area Initiative*: The Riverbank Enhancement Program under the Core Area Initiative should be implemented by the riverfront corporation. The program should continue to be administered as it is now using the existing reviews, approvals and committee structure. The only change would be the appointment of a riverfront corporation employee as the program manager, and the assignment of program implementation to the corporation.

19. *Relationship with The Forks Renewal Corporation*. The riverfront corporation and The Forks Renewal Corporation should exist independently of each other but working together to co-ordinate and complement each others' projects.

APPENDIX 2

CONFERENCE PROGRAMME

OPENING SESSION

Introduction of Speakers--Mr. Brij Mathur, Conference Co-ordinator

Welcome Address--Dr. Tom Carter, Director, Institute of Urban Studies

Introductory Address--Hon. Gerry Ducharme, Minister of Urban Affairs, Government of Manitoba

Keynote Address--Mr. Raymond Moriyama, O.C., Moriyama & Teshima, Architects & Planners, Toronto

JURISDICTIONAL INTERESTS IN WINNIPEG

The Federal Interest--Dr. Derek Bjonback, Chief of Water Planning & Development, Inland Waters Directorate, Environment Canada

The Provincial Interest--Mr. Jim Beaulieu, Deputy Minister of Urban Affairs, Government of Manitoba

The City Interest--Mr. Doug Kalcsics, Chief Planner, City of Winnipeg

The Regional Interest--Mr. Jack Oatway, Chair, Manitoba Association of Rural Municipalities (Winnipeg Region)

ISSUES IN CONSERVATION AND DEVELOPMENT

Environmental Issues in the Winnipeg River Corridors--Dr. Andy Lockery, Co-ordinator, Environmental Studies Program, University of Winnipeg

Preservation Issues in the Winnipeg River Corridors--Mr. Rod Tester, President, Manitoba Naturalist Society

Issues of Riverbank Development--Mr. Doug Clark, Program Manager, Riverbank Enhancement, Winnipeg Core Area Initiative

PERSPECTIVE OF USERS

Perspectives of Riverbank Property Owners--Ms. Elizabeth Ballantyne, RiverBankers Inc., Winnipeg

Perspectives of Water Users--Presentation by 1989-90 Urban Workshop Class, University of Winnipeg

User Control and Management--Mr. Ross Dobson, Greening the Forks Committee

CANADIAN RESPONSES TO RIVERBANKS

The City By-law Approach--Mr. Garth Clyburn, Land Use Planner, City of Edmonton

The Special Agency Approach--Mr. Ken Pontikes, Director, Planning & Development, City of Saskatoon

The Environmental Management Approach--Ms. Rasheda Nawaz, Environmental Management Planner, City of Ottawa & Mr. Richard Scott, Senior Planner, Environmental Policy, National Capital Commission, Ottawa

SPECIAL SESSION ON THE PROPOSED RIVERFRONT CORPORATION FOR THE WINNIPEG REGION

Ms. Heather MacKnight, Senior Planner, Manitoba Urban Affairs.

PROSPECTS FOR WINNIPEG'S RIVERS

Report from Sessions--Mr. Brij Mathur, Conference Co-ordinator and Rapporteurs

Panel Discussion: Prospects for Winnipeg's Rivers--Councillors Evelyne Reese, Donovan Timmers and Ernie Gilroy, City of Winnipeg